HYDRAULIC EXCAVATOR

PC400-8R
PC400LC-8R

HORSEPOWER
Gross: 270 kW 362 HP @ 1900 rpm
Net: 257 kW 345 HP @ 1900 rpm

OPERATING WEIGHT
PC400-8R: 41740–42590 kg
92,020–93,890 lb
PC400LC-8R: 42290–43200 kg
93,230–95,340 lb

Photo may include optional equipment.
**Walk-Around**

**Genuine Answers for Land and Environment Optimization**

**Productivity Features**
- **High Production and Low Fuel Consumption**
  High power, working performance and fuel efficiency improve production and fuel costs.
- **Excellent Machine Stability**
  Large counterweight offers superior machine stability and balance.
- **Large Digging Force**
  Pressing the Power Max function button temporarily increases the digging force 7%.
- **Two-mode Setting for Boom**
  Switch selection allows either powerful digging or smooth boom operation.
  See page 5.

**Large TFT LCD Monitor**
- Easy-to-see and use 7” large multi-function color monitor
- Can be displayed in 12 languages for global support.
  TFT : Thin Film Transistor
  LCD : Liquid Crystal Display
  See page 8.

**Safety Design**
- Cab dedicated to hydraulic excavator for protecting the operator if the event of machine rolls over.
- Anti-slip plates for safe work on machine
- Rear view monitoring system for easy checking behind the machine (optional)
  See page 7.

**Easy Maintenance**
- Long replacement interval of engine oil, engine oil filter, hydraulic oil and hydraulic filter.
- Side-by-side radiator and oil cooler configuration enables independent removal and installation of those two components.
- Equipped with the EMMS monitoring system.
- Easy access to engine oil filter and fuel drain valve
- Large fuel tank capacity
- Electric priming pump installed.
- Equipped with large size steps for easier maintenance.
  See page 6.

**Ecology and Economy Features**
- High power Komatsu SAA6D125E engine
  A powerful turbocharged and air to air aftercooled Komatsu SAA6D125E-5 engine provides 257 kW 345 HP.
- Economy mode saves fuel consumption.
- Low operation noise
  See pages 4 and 5.

**Large Comfortable Cab**
- Low-noise cab
- Low vibration with cab damper mounting
- Highly pressurized cab with optional air conditioner
- Operator seat and console with armrest that enables operations in the appropriate operational posture.
  See page 6.

**Excellent Reliability and Durability**
- The fuel reliability is improved by adding fuel main-filter and water separator working against low grade fuel.
- Equipped with fuel pre-filter as standard (with water separator).
- High pressure in-line filter
  See page 10.

**Variable Track Gauge (optional)**
- Greatly increases lateral stability
- Compliant with transportation regulations
  See page 5.

**Horsepower**
- Gross: 270 kW 362 HP @ 1900 rpm
- Net: 257 kW 345 HP @ 1900 rpm

**Operating Weight**
- PC400-8R: 41740 – 42590 kg 92,020 – 93,890 lb
- PC400LC-8R: 42290 – 43200 kg 93,230 – 95,240 lb

**Bucket Capacity**
- 1.30 – 2.20 m³ 1.70 – 2.88 yd³

**Variable Track Gauge (optional)**
- Greatly increases lateral stability
- Compliant with transportation regulations
  See page 5.

Photo may include optional equipment.
Smooth Loading Operation
Two return hoses improve hydraulic performance. In the arm out function, a portion of the oil is returned directly to the tank providing smooth operation.

Boom floats upward, reducing lifting of machine front. This facilitates gathering blasted rock and scraping down operations.

Large Digging Force
With the one-touch Power Max. function digging force has been further increased. (8.5 seconds of operation)

P mode – Power or work priority mode has low fuel consumption, but fast equipment speed and maximum production and power are maintained.

E mode – Economy or fuel priority mode further reduces fuel consumption, but maintains the P-mode-like working equipment speed for light duty work.

Eco-gauge that Assists Energy-saving Operations
Equipped with the Eco-gauge that can be recognized at a glance on the right of the multi-color monitor for environment-friendly energy-saving operations. Allows focus on operation in the green range with reduced CO₂ emissions and efficient fuel consumption.

Idling Caution
To prevent unnecessary fuel consumption, an idling caution is displayed on the monitor, if the engine idles for 5 minutes or more.

Working Modes Selectable
Two established work modes are further improved.

Economy or fuel priority mode further reduces fuel consumption, but maintains the P-mode-like working equipment speed for light duty work.

You can select Power or Economy modes using a one-touch operation on the monitor panel depending on workloads.

Variable Track Gauge (optional)
- Lateral stability is significantly improved when operating with the gauge extended.
- Lateral stability is increased by 30% (compared with the fixed gauge version).
- With trackframes retracted, overall width complies with many local transportation regulations.

Smooth Loading Operation
Two return hoses improve hydraulic performance. In the arm out function, a portion of the oil is returned directly to the tank providing smooth operation.

Two-mode Setting for Boom
Smooth mode provides easy operation for gathering blasted rock or scraping down operation. When maximum digging force is needed, switch to Power mode for more effective excavating.

Smooth mode
Boom pushing force is increased, ditch digging and box digging operation on hard ground are improved.

Power mode

High Power Komatsu SAA6D125E Engine
The PC400-8R gets its exceptional power and work capacity from a Komatsu SAA6D125E-5 engine. Output is 257 kW (345 HP), providing increased hydraulic power and improved fuel efficiency.

The SAA6D125E-5 engine adopts the electronically controlled Heavy Duty HPCR* fuel injection system.

*HPCR : High Pressure Common Rail

Low Operation Noise
Enables a low noise operation using the low-noise engine and methods to cut noise at source. Ambient noise meets the EU Stage 2 noise regulation.

Excellent Machine Stability
Large counterweight offers superior machine stability and balance.
WORKING ENVIRONMENT

Safety Features

Cab Dedicated to Hydraulic Excavator
The cab is designed specifically for hydraulic excavators and gains reinforced strength from the pipe-structured cab framework. The cab framework provides the high durability and impact resistance with very high impact absorbency. The seat belt keeps the operator in the safety of the cab during a rollover.

Lock Lever
Locks the hydraulic pressure to prevent unintentional movement. Neutral start function only allows machine to be started in lock position.

Pump/Engine Room Partition
Pump/engine room partition prevents oil from spraying onto the engine if a hydraulic hose should fail.

Thermal and Fan Guards
Thermal and fan guards are placed around high-temperature parts of the engine and fan drive.

Anti-slip Plates
Highly durable anti-slip plates maintain superior traction performance for the long term.

Pressurized Cab
Optional air conditioner, air filter and a higher internal air pressure (+6.0 mm Aq +0.2"Aq) prevent external dust from entering the cab.

Automatic Air Conditioner (optional)
Enables you to easily and precisely set cab atmosphere with the instruments on the large LCD. The bi-level control function keeps the operator’s head and feet cool and warm respectively. This improved air flow function keeps the inside of the cab comfortable throughout the year. Defroster function keeps front glass clear.

Low Cab Noise
The newly-designed cab is highly rigid and has excellent sound absorption ability. Thorough improvement of noise source reduction and use of low noise engine, hydraulic equipment, and air conditioner allows this machine to generate a low level of noise.

Low Vibration with Cab Damper Mounting
PC400-8R uses viscous damper mounting for cab that incorporates longer stroke and the addition of a spring. The new cab damper mounting combined with high rigidity deck aids vibration reduction at operator seat.

Wide Newly-designed Cab
Newly-designed wide spacious cab includes seat with reclining backrest. The seat height and longitudinal inclination are easily adjusted using a pull-up lever. You can set the appropriate operational posture of armrest together with the console. Reclining the seat further enables you to place it into the fully flat state with the headrest attached.

Pressurized Cab
Optional air conditioner, air filter and a higher internal air pressure (+6.0 mm Aq +0.2"Aq) prevent external dust from entering the cab.

Rubber
Silicon
Oil
Spring

Anti-slip Plates
Highly durable anti-slip plates maintain superior traction performance for the long term.

Large Serrated Steps
Large Handrail
**Large LCD Color Monitor**

A large user-friendly color monitor enables safe, accurate and smooth work. Improved screen visibility is achieved by the use of TFT liquid crystal display that can easily be read at various angles and lighting conditions. Simple and easy to operate switches. Function keys facilitate multi-function operations.

Displays data in 12 languages to globally support operators around the world.

**Mode Selection**

The multi-function color monitor has Power mode, Economy mode, Lifting mode, Breaker mode and Attachment mode.

**Working Mode**

- **P**: Power mode
- **E**: Economy mode
- **L**: Lifting mode
- **B**: Breaker operation
- **ATT**: Attachment mode

**Advantage**

- Maximum production/power
- Excellent fuel economy
- Fast cycle time
- Hydraulic pressure increased by 7%
- Optimum engine rpm, hydraulic flow
- 2 way

**Lifting Mode**

When the Lifting mode is selected, lifting capacity is increased 7% by raising hydraulic pressure.

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**EMMS (Equipment Management Monitoring System)**

**Monitor Function**

Controller monitors engine oil level, coolant temperature, battery charge and air clogging, etc. If controller finds any abnormality, it is displayed on the LCD.

**Maintenance Function**

Monitor informs replacement time of oil and filters on LCD when the replacement interval is reached.

**Trouble Data Memory Function**

Monitor stores abnormalities for effective troubleshooting.

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**Easy Maintenance**

**Easy Access to Engine Oil Filter and Fuel Drain Valve**

Engine oil dipstick and fill, and fuel filter are mounted on same side to improve accessibility. Fuel drain valve are remotely mounted to improve accessibility.

**Long-life Oil, Filter**

Uses high-performance filtering materials and long-life oil. Extends the oil and filter replacement interval.

**Large Capacity Air Cleaner**

Large capacity air cleaner is comparable to that of larger machines. The larger air cleaner can extend air cleaner life during long-term operation and prevents early clogging and resulting power decrease. Reliability is improved by a new seal design.

**Large Fuel Tank Capacity**

Large fuel tank capacity extends operating hours before refueling. Fuel tank is treated for rust prevention and improved corrosion resistance.

**Long Work Equipment Greasing Interval (optional)**

High quality BMRC bushings and resin shims are optionally available for work equipment pins excluding bucket, extending greasing interval to 500 hours.

**Easy Radiator Cleaning**

Since radiator and oil cooler are arranged side-by-side, it is easy to clean, remove and install them.

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**Large Multi-lingual LCD Monitor**

A large user-friendly color monitor enables safe, accurate and smooth work. Improved screen visibility is achieved by the use of TFT liquid crystal display that can easily be read at various angles and lighting conditions. Simple and easy to operate switches. Function keys facilitate multi-function operations.

Displays data in 12 languages to globally support operators around the world.

**Basic Operation Switches**

- Auto-decelerator
- Working mode
- Travel speed
- Engine water temperature gauge
- Fuel gauge
- Function switches menu

**Function Switches**

- EMMS
- Buzzer cancel
- Wiper
- Windshield washer

**Indicators**

- E: Engine oil & Filter
- L: Hydraulic oil
- E: Hydraulic oil filter
- L: Fuel drain valve

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**Easy Radiator Cleaning**

Since radiator and oil cooler are arranged side-by-side, it is easy to clean, remove and install them.

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**Easy Radiator Cleaning**

Since radiator and oil cooler are arranged side-by-side, it is easy to clean, remove and install them.
**PC400-8R** **Hydraulic Excavator**

### Specifications

**Engine**
- Model: Komatsu SAA6D125E-5
- Type: Water-cooled, 4-cylinder, direct injection
- Compression: Turbocharged, aftercooled
- Number of cylinders: 6
- Bore: 125 mm (4.92"")
- Stroke: 150 mm (5.91"")
- Piston displacement: 11.04 ltr (747 cu in)
- Horsepower:
  - SAE J1995: Gross 362 HP (270 kW)
  - ISO 9249 / SAE J1349: Net 345 HP (257 kW)

**Swing System**
- Drive method: Hydrostatic
- Swing reduction: Planetary gear
- Swing circle lubrication: Grease-bathed
- Service brake: Hydraulic lock
- Holding brake/Swing lock: Mechanical disc brake
- Swing speed: 9.1 rpm

**Coolant and Lubricant**
- Fuel tank: 650 ltr (172 U.S. gal)
- Coolant: 36.0 ltr (9.5 U.S. gal)
- Engine: 37.0 ltr (9.8 U.S. gal)
- Final drive, each side: 10.5 ltr (2.8 U.S. gal)
- Swing drive: 20.0 ltr (5.3 U.S. gal)
- Hydraulic tank: 248 ltr (65.9 U.S. gal)

**Operating Weight (Approximate)**

<table>
<thead>
<tr>
<th>Shoes</th>
<th>Operating Weight</th>
<th>Ground Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>PG400-8R</td>
<td>42910 kg</td>
<td>92,320 lb</td>
</tr>
<tr>
<td>42740 kg</td>
<td>94,250 lb</td>
<td></td>
</tr>
<tr>
<td>58.3 ltr</td>
<td>0.27 kgf/cm²</td>
<td>4.15 psi</td>
</tr>
</tbody>
</table>

**Drives and Brakes**
- Steering control: Two levers with pedals
- Drive method: Hydrostatic
- Maximum drawbar pull: 1300 mm (51.2")
- Grading ability: 70%, 35°
- Maximum travel speed: High: 5.5 km/h (3.4 mph)
  - (Auto-Shift) Mid: 4.0 km/h (2.5 mph)
  - (Auto-Shift) Low: 3.0 km/h (1.9 mph)
- Service brake: Hydraulic lock
- Parking brake: Mechanical disc brake

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**PC400-8R** **Hydraulic Excavator**

### Reliability Features

**Excellent Reliability and Durability**

**High Pressure In-line Filter**
- In-line filters are provided at outlet port (pressure side) of each pump to protect hydraulic system contamination.

**Fuel Main-filter**
- The reliability of fuel systems is improved, because fuel main-filter additionally installed removes contaminants and sludge contained in fuel.

**Metal Guard Rings**
- Metal guard rings protect all the hydraulic cylinders and improve reliability.

**Wear Ring**

**DT-type Connectors**
- DT-type connectors seal tight and have higher reliability.

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**PC400-8R** **Hydraulic Excavator**

### Undercarriage

- Center frame: X frame
- Track frame: Box-section
- Seal of track: Sealed track
- Track adjuster: Hydraulic

**Specifications**

- Number of selectable working modes: 4
- Main pump type: Variable displacement piston type
- Number of carrier rollers: 4 each side
- Number of track rollers (each side): 49
- Type: HydrauMind (Hydraulic Mechanical Intelligence New Design)
- System: Closed-center system with load sensing valves and pressure compensated valves

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**Hydraulics**

- Rated rpm: 1900 rpm
- Piston displacement: 37.3 ltr (2.8 U.S. gal)
- Stroke: 6.92" (175 mm)
- Bore: 5.91" (149 mm)
- Pressure: 27.9 MPa (4100 psi)
- Flow: 175 l/min (6.5 GPM)

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**Cooling and Lubrication**

- In-line filters are provided at outlet port (pressure side) of each pump to protect hydraulic system contamination.
- Fuel pre-filter: Fuel main-filter
- In-line filters are provided at outlet port (pressure side) of each pump to protect hydraulic system contamination.
- Fuel pre-filter: Fuel main-filter
- In-line filters are provided at outlet port (pressure side) of each pump to protect hydraulic system contamination.
- Fuel pre-filter: Fuel main-filter
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- Fuel pre-filter: Fuel main-filter
### Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>PC400-8</th>
<th>PC400LC-8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> Overall length</td>
<td>10.7 m</td>
<td>10.7 m</td>
</tr>
<tr>
<td><strong>B</strong> Jib length</td>
<td>7.1 m</td>
<td>7.2 m</td>
</tr>
<tr>
<td><strong>C</strong> Rated load</td>
<td>17.5 t</td>
<td>17.5 t</td>
</tr>
<tr>
<td><strong>D</strong> Bucket capacity</td>
<td>23.5 t</td>
<td>23.5 t</td>
</tr>
</tbody>
</table>

### Working Range

<table>
<thead>
<tr>
<th>Arm Length</th>
<th>2.4 m 7'10&quot;</th>
<th>2.9 m 9'6&quot;</th>
<th>3.55 m 11'8&quot;</th>
<th>4.0 m 13'1&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> Max. digging height</td>
<td>10.8 m 35'11&quot;</td>
<td>13.0 m 42'9&quot;</td>
<td>16.2 m 53'2&quot;</td>
<td>20.6 m 67'3&quot;</td>
</tr>
<tr>
<td><strong>B</strong> Max. digging depth</td>
<td>6.9 m 22'10&quot;</td>
<td>7.4 m 24'3&quot;</td>
<td>7.9 m 25'9&quot;</td>
<td>8.4 m 27'6&quot;</td>
</tr>
<tr>
<td><strong>C</strong> Max. vertical wall digging depth</td>
<td>5.3 m 17'5&quot;</td>
<td>5.7 m 18'8&quot;</td>
<td>6.7 m 22'0&quot;</td>
<td>7.2 m 23'8&quot;</td>
</tr>
<tr>
<td><strong>D</strong> Max. digging reach at ground level</td>
<td>10.9 m 35'11&quot;</td>
<td>11.4 m 37'2&quot;</td>
<td>12.0 m 39'3&quot;</td>
<td>12.6 m 41'4&quot;</td>
</tr>
<tr>
<td><strong>E</strong> Min. swing radius</td>
<td>4.6 m 15'10&quot;</td>
<td>4.7 m 15'7&quot;</td>
<td>4.7 m 15'7&quot;</td>
<td>4.8 m 15'9&quot;</td>
</tr>
<tr>
<td><strong>F</strong> Bucket digging force at lower max.</td>
<td>23.9 kN 5320 lb</td>
<td>24.8 kN 5490 lb</td>
<td>27.0 kN 5990 lb</td>
<td>31.0 kN 6830 lb</td>
</tr>
<tr>
<td><strong>G</strong> Arm crown force at lower max.</td>
<td>20.0 kN 4410 lb</td>
<td>20.9 kN 4620 lb</td>
<td>22.6 kN 5000 lb</td>
<td>28.2 kN 6230 lb</td>
</tr>
<tr>
<td><strong>H</strong> Arm crown force at higher max.</td>
<td>27.7 kN 6110 lb</td>
<td>28.6 kN 6310 lb</td>
<td>30.5 kN 6730 lb</td>
<td>36.4 kN 8010 lb</td>
</tr>
</tbody>
</table>

### Backhoe Bucket, Arm, and Boom Combination

<table>
<thead>
<tr>
<th>Bucket Capacity (heaped)</th>
<th>Width</th>
<th>Weight</th>
<th>Number of Teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3 m 3'10&quot; 1.5 m 4'9&quot; 1.8 m 6'0&quot; 2.1 m 6'9&quot;</td>
<td>2.6 m 7'10&quot;</td>
<td>2.9 m 9'6&quot; 3.3 m 11'1&quot;</td>
<td>4.0 m 13'1&quot;</td>
</tr>
</tbody>
</table>

### Lifting Capacity with Lifting Mode

<table>
<thead>
<tr>
<th>Arm Length</th>
<th>2.4 m 7'10&quot;</th>
<th>2.9 m 9'6&quot;</th>
<th>3.55 m 11'8&quot;</th>
<th>4.0 m 13'1&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> Reach from swing center</td>
<td>4.4 m 14'8&quot;</td>
<td>5.2 m 17'1&quot;</td>
<td>7.0 m 23'0&quot;</td>
<td>10.6 m 34'8&quot;</td>
</tr>
<tr>
<td><strong>B</strong> Bucket hook center</td>
<td>4.5 m 14'9&quot;</td>
<td>5.2 m 17'1&quot;</td>
<td>7.0 m 23'0&quot;</td>
<td>10.6 m 34'8&quot;</td>
</tr>
<tr>
<td><strong>C</strong> Lifting capacity</td>
<td>4.5 m 14'9&quot;</td>
<td>5.2 m 17'1&quot;</td>
<td>7.0 m 23'0&quot;</td>
<td>10.6 m 34'8&quot;</td>
</tr>
</tbody>
</table>

- **Cf**: Rating forward
- **Cs**: Rating side
- **H**: Rating at maximum reach

*Load is limited by hydraulic capacity rather than tipping. Ratings are based on SAE standard No. J1097. Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load.*
### Lifting Capacity with Lifting Mode

<table>
<thead>
<tr>
<th>A</th>
<th>Reach from swing center</th>
<th>B</th>
<th>Bucket hook height</th>
<th>C</th>
<th>Lifting capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cf</td>
<td>Rating over front</td>
<td>Cs</td>
<td>Rating over side</td>
<td>H</td>
<td>Rating at maximum reach</td>
</tr>
</tbody>
</table>

### Standard Equipment

- Alternator, 50 Ampere, 24V
- Anti-skid plates
- Auto-decel
- Automatic engine warm-up system
- Batteries, 110 Ah/2 x 12V
- Boom holding valve
- Cab, capable OPS (OPS) with optional bolt-on top guard
- Corrosion resistor
- Counterweight, 9220 kg
- Dry type air cleaner, double element
- Electric horn
- Electric priming pump
- Engine, Komatsu SAA6D125E-5
- Engine overheat prevention system
- Fan guard structure
- Fuel pre-filter (with water separator)
- Hydraulic track adjusters (each side)
- Multi-function color monitor
- Power maximizing system
- PPC hydraulic control system
- Radiator & oil cooler dust proof net
- Rear reflector
- Rear view mirror (RH, LH)
- Seat belt, retractable
- Track guiding guard, center section
- Track roller
  - PC400-8R, 7 each side
  - PC400LC-8R, 8 each side
- Track shoe
  - PC400-8R, 600 mm 24" triple grouser
  - PC400LC-8R, 700 mm 28" triple grouser
- Travel alarm
- Two settings for boom
- Water separator
- Working light, 2 (boom and RH)
- Working mode selection system

### Optional Equipment

- Air conditioner with defroster
- Alternator, 60 ampere, 24 V
- Arms
  - 2400 mm 7’10” arm assembly
  - 2900 mm 9’6” arm assembly
  - 3380 mm 11’1” arm assembly
  - 4000 mm 13’1” arm assembly
- Batteries, 140 Ah/2 x 12V
- Bolt-on top guard, (Operator Protective Guards level 2 (OPS))
- Boom, 7060 mm 23’2"
- Cab accessories
  - Cab front guard
- Cab front guard
  - Full height guard
  - Half height guard
- Heater with defroster
- Long lubricating intervals for implement bushings
- Rear view mirror (rear and sidewise)
- Rear view monitoring system
- Seat, suspension
- Service valve
- Shoes, triple grouser shoes
  - PC400-8R
  - 700 mm 28”, 800 mm 31.5”
  - PC400LC-8R
  - 600 mm 24”, 800 mm 31.5”
- Track frame undercarver
- Track frame undercarver
- Track frame undercarver
- Track frame undercarver
- Track frame undercarver

### Special Purpose Bucket

- Ripper bucket for hard and rock ground
  - Capacity
    - SAE heaped 1.1 m³ / 1.44 yd³
    - CECE heaped 1.0 m³ / 1.31 yd³
    - Width: 1250 mm 49.2”
  - Single-shank ripper is recommended for rock-digging and crushing, hard soil digging, pavement removal works, etc.

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*Load is limited by hydraulic capacity rather than tipping. Ratings are based on SAE standard No. 21977. Rated loads do not exceed 80% of hydraulic lift capacity or 75% of tipping load.*