Innovations
For The Future

Dimensions

HD820V
HD820V LC

Bucket capacity: 0.45 m³ - 1.1 m³ (ISO)
Engine output: 112.5 kW / 2,000 min⁻¹ (ISO Net)
Operating weight: 19,900 kg (HD820V)
20,700 kg (HD820 VLC)

FULLY HYDRAULIC EXCAVATOR

Address inquiries to:
Tokyo(03)3458-1163

Dimensions (Unit: mm)

<table>
<thead>
<tr>
<th>HD820V</th>
<th>HD820V LC</th>
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<tbody>
<tr>
<td>9,450</td>
<td>9,450</td>
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<tr>
<td>4,170</td>
<td>4,460</td>
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<tr>
<td>3,370</td>
<td>3,660</td>
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<tr>
<td>2,960</td>
<td>3,240</td>
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<td>2,220</td>
<td>2,390</td>
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<tr>
<td>600</td>
<td>600</td>
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<tr>
<td>2,820</td>
<td>2,990</td>
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<tr>
<td>2,910</td>
<td>2,920</td>
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</tbody>
</table>

NOTE: Illustrations may include optional equipment. KATO products and specifications are subject to improvements and changes without notice.

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Printed in Japan
It is a word of ACTIVE MACHINE with 5 essential design features:

- User friendly design
- Environmentally cautious design
- Lower fuel consumption
- Powerful Operation
- Robotic shape design
Pressurized water circulated by a centrifugal pump with thermostat
Pressurized oil fed by a gear pump through... responsible emission control and lower fuel consumption

Increase in operating hydraulic pressure to 34.3MPa (350kgf/cm²)
Digging force:
- Reinforcement of boom & arm
  - Increased strength by 9%
  - 17%

New Display APC200

Prominent Features
- Powerfull Operation
  - Increase in operating hydraulic pressure to 34.3MPa (350kgf/cm²)
  - 20,700kg: HD820VLC
  - 19,900kg: HD820V

- Advanced Noize Emission Control
  - Lower noise emission control adopting low noise exhaust muffler and advanced low noise hydraulic system offers fatigue-free and safer operation. Low noise means low energy-loss machine. Noise Level (Sound Power Level): 99dB

- Responsible Emission Control and Lower Fuel Consumption
  - Mitsubishi 4M50-TLE3A, 4 cycle intercooler turbo charged diesel engine
  - Model: Mitsubishi 4M50-TLE3A, 4 cycle intercooler turbo charged diesel engine
  - Bore & Stroke: 114mm x 120mm
  - Bore & Stroke: 114mm x 120mm
  - Rated output: 112.5kW/2,000rpm
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  - Max. torque: 564N·m/1,600rpm
  - Max. torque: 564N·m/1,600rpm
  - Compression ratio: 17.6:1
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  - Combustion system: Direct injection
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  - Fuel: Direct injection common rail type
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  - Emission Control: Low noise exhaust muffler and advanced low noise hydraulic system
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  - Emission Control: Low noise exhaust muffler and advanced low noise hydraulic system

- HYDRAULIC SYSTEM
  - Pumps: Double variable piston pump and gear pump
  - Max. discharge flow: 2×235L/min
  - Max. discharge pressure: 34.3MPa
  - Maximum discharge pressure: 34.3MPa
  - Oil filter: Full-flow filter with replaceable element, drain cartridge filter, pilot line filter and suction strainer
  - Oil filter: Full-flow filter with replaceable element, drain cartridge filter, pilot line filter and suction strainer
  - Control valves: 9 + 4 section multiple control valves (with one free service circuit)
  - Control valves: 9 + 4 section multiple control valves (with one free service circuit)
  - Pilot pump: Gear type
  - Pilot pump: Gear type
  - Oil cooler: Finned tube, forced ventilation
  - Oil cooler: Finned tube, forced ventilation
  - Pressure relief valves: Primary and secondary on each circuit
  - Pressure relief valves: Primary and secondary on each circuit

- CAB & CONTROLS
  - Type: All weather sound suppressed, 1,000mm wide pressed steel cab mounted on 6 point viscous mounting
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  - Right hand levers: Controls the boom & bucket
  - Right hand levers: Controls the boom & bucket
  - Inner right hand lever: Controls the right hand track
  - Inner right hand lever: Controls the right hand track

- Engine
  - Model: Mitsubishi 4M50-TLE3A, 4 cycle intercooler turbo charged diesel engine
  - Type: All weather sound suppressed, 1,000mm wide pressed steel cab mounted on 6 point viscous mounting
  - Rated output: 112.5kW/2,000rpm
  - Max. torque: 564N·m/1,600rpm
  - Compression ratio: 17.6:1
  - Combustion system: Direct injection
  - Fuel: Direct injection common rail type
  - Emission Control: Low noise exhaust muffler and advanced low noise hydraulic system

- SPACE DATA
  - Fuel tank: 420 L
  - Cooling system: 25 L
  - Engine oil: 20.5 L
  - Track drives: 2×5 L
  - Swing drive: 5 L
  - Hydraulics oil tank: 260 L
  - In standard figure, with the 2.93m arm, 600mm grouser shoes and 0.8m³ (HD820VLC: 0.9m³/ISO, bucket)
  - Operating weight: 19,900kg: HD820V
  - In standard figure, with the 2.93m arm, 600mm grouser shoes and 0.8m³ (HD820VLC: 0.9m³/ISO, bucket)
  - Ground pressure: 45Pa: HD820V

- Travel System
  - Drive: Independent axial piston motor with reduction for each side
  - Brakes: Independent disk parking brake for each side, applied automatically when the travel levers are in the neutral position
  - Track shoes: 46 each side HD820V
  - Track adjustment: Grease cylinders with recoil springs
  - Lubrication: Sealed-for-life rollers and front idlers with floating seals
  - Travel speed: High 0–5.5km/h
  - Max. drawbar pull: 185kN (less grouser bar)
  - Gradeability: 70% (35°)
  - Max. drawbar pull: 185kN (less grouser bar)
  - Track length: 4,460mm

- Swing System
  - Drive: Independent axial piston motor with reduction for each side
  - Brake: Independent disk parking brake for each side, applied automatically when the travel levers are in the neutral position
  - Track shoes: 46 each side HD820V
  - Track adjustment: Grease cylinders with recoil springs
  - Lubrication: Sealed-for-life rollers and front idlers with floating seals
  - Travel speed: High 0–5.5km/h
  - Max. drawbar pull: 185kN (less grouser bar)
  - Gradeability: 70% (35°)
  - Max. drawbar pull: 185kN (less grouser bar)
  - Track length: 4,460mm

- Technical Specifications

- ENGINE
  - Model: Mitsubishi 4M50-TLE3A, 4 cycle intercooler turbo charged diesel engine
  - Number of cylinders: 4

- HYDRAULIC SYSTEM
  - Pumps: Double variable piston pump and gear pump
  - Max. discharge flow: 2×235L/min
  - Max. discharge pressure: 34.3MPa
  - Oil filter: Full-flow filter with replaceable element, drain cartridge filter, pilot line filter and suction strainer
  - Control valves: 9 + 4 section multiple control valves (with one free service circuit)
  - Pilot pump: Gear type
  - Oil cooler: Finned tube, forced ventilation
  - Pressure relief valves: Primary and secondary on each circuit

- CAB & CONTROLS
  - Type: All weather sound suppressed, 1,000mm wide pressed steel cab mounted on 6 point viscous mounting
  - Right hand levers: Controls the boom & bucket
  - Inner right hand lever: Controls the right hand track

- SPRING SYSTEM
  - Drive: Independent axial piston motor with reduction for each side
  - Brakes: Independent disk parking brake for each side, applied automatically when the travel levers are in the neutral position
  - Track shoes: 46 each side HD820V
  - Track adjustment: Grease cylinders with recoil springs
  - Lubrication: Sealed-for-life rollers and front idlers with floating seals
  - Travel speed: High 0–5.5km/h
  - Max. drawbar pull: 185kN (less grouser bar)
  - Gradeability: 70% (35°)
  - Max. drawbar pull: 185kN (less grouser bar)
  - Track length: 4,460mm

- SERVICE DATA
  - Fuel tank: 420 L
  - Cooling system: 25 L
  - Engine oil: 20.5 L
  - Track drives: 2×5 L
  - Swing drive: 5 L
  - Hydraulics oil tank: 260 L
  - In standard figure, with the 2.93m arm, 600mm grouser shoes and 0.8m³ (HD820VLC: 0.9m³/ISO, bucket)
  - Operating weight: 19,900kg: HD820V
  - In standard figure, with the 2.93m arm, 600mm grouser shoes and 0.8m³ (HD820VLC: 0.9m³/ISO, bucket)
  - Ground pressure: 45Pa: HD820V
  - Ground pressure: 43Pa: HD820VLC
### Lifting Capacities

**HD820V**

- **Boom**: 5.63m, **Arm**: 2.93m, **Bucket**: 0.8m³ (640kg), **Shoe Width**: 650mm, **Counterweight**: 4,200kg

<table>
<thead>
<tr>
<th>Lift Point Radius (m)</th>
<th>0.50</th>
<th>1.00</th>
<th>1.50</th>
<th>2.00</th>
<th>2.50</th>
<th>3.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>B (m) Lifting Capacity (t)</td>
<td>7.00</td>
<td>6.48</td>
<td>5.74</td>
<td>5.00</td>
<td>4.24</td>
<td>3.51</td>
</tr>
<tr>
<td>A (m) Lifting Capacity (t)</td>
<td>7.00</td>
<td>6.48</td>
<td>5.74</td>
<td>5.00</td>
<td>4.24</td>
<td>3.51</td>
</tr>
</tbody>
</table>

**HD820VLC**

- **Boom**: 5.63m, **Arm**: 2.93m, **Bucket**: 0.9m³ (710kg), **Shoe Width**: 600mm, **Counterweight**: 4,200kg

<table>
<thead>
<tr>
<th>Lift Point Radius (m)</th>
<th>0.50</th>
<th>1.00</th>
<th>1.50</th>
<th>2.00</th>
<th>2.50</th>
<th>3.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>B (m) Lifting Capacity (t)</td>
<td>7.00</td>
<td>6.93</td>
<td>6.14</td>
<td>5.35</td>
<td>4.56</td>
<td>3.78</td>
</tr>
<tr>
<td>A (m) Lifting Capacity (t)</td>
<td>7.00</td>
<td>6.93</td>
<td>6.14</td>
<td>5.35</td>
<td>4.56</td>
<td>3.78</td>
</tr>
</tbody>
</table>

**NOTE:**
- Lifting capacities are based on ISO 10567.
- Lift capacity shown do not exceed 85% of machine hydraulic capacity or 75% of minimum tipping load.
- Capacities marked with an asterisk (*) are limited by hydraulic capacities.
- Lift capacity is based on machine standing on firm, uniform supporting surface. User must make allowances for job conditions such as soft or uneven ground.
- Lifting capacities shown should not be exceeded. Weight of all lifting accessories must be deducted from the above lifting capacities.
- Capacities apply only to this machine as originally manufactured and equipped by KATO WORKS CO., LTD.
- The operator shall be fully acquainted with the Operation Manual before operating the machine.

### Standard Equipments

- **Color Monitor Display (APC002)**
- **Seat Belt**
- **Automatic Air Conditioner (Pressurized)**
- **Hot & Cool Box**
- **Flatbeds/Track/Various Type of Bucket**
- **Emergency Exit Rear Window**
- **Air Conditioning Speakers**
- **18 cm Dual Cowl Speaker (2)***
- **Cabin Light**
- **Standard Working Lights (Slewing Table-B, Boom-L, Cab-L)**
- **Rear View Mirror-R**
- **Side View Mirror-L**
- **Tail View Mirror**
- **Working Mode Selector (APC200)**
- **Auto Slow, One Touch Slow**
- **Boom Arm Anti-Drip Valve**
- **Slewing Anti-Overload Action**
- **Automatic Parking Brake (Slewing Table)**
- **Automatic Parking Brake (Traveling)**
- **Service Port (1 SPOOL)**
- **Entry System**
- **Track Guard (1 per each)**

### Optional Equipments

- **Transparent Roof Hatch with Sun Visor**
- **Optional Working-Light Boom (R)**
- **Optional Working-Light (R-L)***
- **Under Counters Slewing Table (R/L)**
- **2-Way Optional Parking for Crusher/Breaker**
- **Booster Circuit for Crushing**
- **Optional Parking for Breaker**
- **Flusher**
- **Windshield Half Side Guard**
- **Windshield Full Side Guard**
- **Cabin Head Guard**
- **Additional Electric Horn**
- **Floor Fuser**
- **Blower Traveling**
- **Electrical Refueling Pump**
- **Fire Extinguisher**
- **Loose Loader**
- **Air Cleaner Double Element**
- **Pro Cleaner**
- **High Performance Fuel Filter**
- **Hose Capture Valve for Boom Cylinder**
- ** Hose Return Valve for Arm Cylinder**
- **Track Guard (1 per each)**
- **Traveling Motor Cover (2)***
- **Over Front**
- **Over Side or 360°**

### Working Ranges

- **Less grouser bar**

### Bucket

- **Type of bucket**
  - Backhoe bucket
  - Side loader bucket
- **Bucket capacity** m³: 1,000kg
- **Bucket width**
  - W: 0.70m
  - with side cutters, mm
- **Standard boom**
  - Short arm
  - Standard arm
  - Long arm

### Track Shoes

- **Type of bucket**
  - Grouser shoe
  - Flat shoe
  - Triangle shoe
- **Shoe width** mm
  - 600 (R) 700 800
  - 900 1,000 1,100 1,200
- **Overall width** mm
  - 2,820 (2,200) 2,920 (2,200) 3,020 (2,200) 3,120 (2,200) 3,220 (2,200) 3,320 (2,200)
- **Ground pressure (KPa)**
  - 45 (43) 39 (37) 33 (31)

### NOTE:
- General purpose
- Light work
- Loading
- Unloading
- Unusable
- No setting

(*) Yellow colored area means standard (HD820 V 0.8m³, HD820VLC 0.9m³)