FULLY HYDRAULIC EXCAVATOR

HD820R

Bucket capacity: 0.45m³-1.1m³ (ISO)
Engine output: 110kW / 2,050min⁻¹ (ISO Net)
Operating weight: 19,500kg (HD820R)
20,300kg (HD820RLC)

Address inquiries to:

KATO WORKS CO., LTD.

QUALITY & EXPERIENCE SINCE 1895

NOTE: Illustrations may include optional equipment. KATO products and specifications are subject to improvements and changes without notice.
REGZAM means “ACTIVE MACHINE” with 5 essential design features

- User friendly design
- Reliable Mitsubishi Engine (6D34-TLE2A)
- New APC Control
- Fatigue Free & Comfortable Cabin
- Powerful Operation
### Technical Specifications

#### ENGINE
- **Model:** Mitsubishi 6D34-TLE3A, 4 cycle intercooler turbo charged diesel engine
- **Number of cylinders:** 6
- **Bore × Stroke:** 104mm × 115mm
- **Total displacement:** 5.86 L
- **Plated output:** 175kW/2,050rpm (ISO Net)
- **Max. torque:** 560N-m/1,400rpm (ISO Net)
- **Compression ratio:** 18.2:1
- **Combustion system:** Direct injection
- **Specific fuel consumption:** 225g/kW-hour
- **Cooling system:** Pressurized water circulated by a centrifugal pump with thermostat
- **Lubrication system:** Pressurized oil fed by a gear pump through full-flow and by pass cartridge filter

#### HYDRAULIC SYSTEM
- **Pumps:** Double variable piston pump and gear pump
- **Max. discharge flow:** 2x36L/min
- **Max. discharge pressure (High power):** 31.4MPa
- **Oil filtration:** Fully flow filter with replaceable element, drain cartridge filter, pilot line filter and suction strainer
- **Control valves:** 5-4 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
- **Left hand lever (with foot pedal):** Controls the left hand track

#### BOOM, ARM AND BUCKET
- **Boom cylinders:** Two, double acting
- **Bore & Stroke:** 125mm × 1,315mm
- **Arm cylinder:** One, double acting
- **Bore & Stroke:** 135mm × 1,630mm
- **Bucket cylinder:** One, double action
- **Bore & Stroke:** 120mm × 1,090mm
- **Lubrication:** Grease nipples and/or centralised greasing for remote points
- **Bucket digging force:** 139kN (High power)
- **Arm digging force:** 99kN (High power)

#### APC150
- **Quick Selection of Working Modes:**
  - **P:** Professional Mode for heavy duty application (H Mode)
  - **A:** All-around Multi Purpose Mode for all application from precision work to heavy duty work by stroke of operation levers
  - **E:** ECO Mode for economical works
- **Color monitor display with backup light**
- **Engine oil filter**
- **Hydraulic oil filter**
- **Engine oil pressure**
- **Hydraulic oil temperature**
- **Water level**
- **Fuel level**
- **Battery charge**
- **APC monitor and air cleaner**
- **Hour meter**
- **Water level**
- **Engine Preheater**
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- **Cooling system**
- **Fuel tank**
- **Swing drive**
- **Track drives**
- **Hydraulic oil tank**

#### SWING SYSTEM
- **Drive:** Axial piston motor with shockless valve and reduction gear.
- **Brake:** A hydraulic brake that locks automatically when the swing control lever is in the neutral position and a mechanical parking brake which is applied when the safety lock lever is pulled backwards, the engine is turned off or the swing control lever is in the neutral position.
- **Lubrication:** Completely housed and grease bathed
- **Max. swing speed:** 13m/min
- **Tail swing radius:** 2,750mm
- **Min. front swing radius:** 3,460mm

#### 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:** 4x each side HD820R
- **Track length:** 49 each side HD820R/LRC
- **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
- **Low 0~3.6km/h
- **Max. drawbar pull:** 22 L
- **Ground clearance:** 179.5mm
- **Ground pressure:** 3,120 L
- **Bucket digging force:** 1,165 L
- **Tail swing radius:** 1,470mm
- **Ground clearance:** 465mm

#### SERVICE DATA
- **Fuel tank:** 320 L
- **Cooling system:** 23 L
- **Engine oil:** 22 L
- **Track drives:** 2 x 5 L
- **Swing drive:** 4.0 L
- **Hydraulic oil tank:** 200 L
- **Operating weight:** 19,500kg (HD820R)
- **Ground clearance:** 430mm (HD820R/LRC)

#### DURABLE SEAT SUSPENSION
- **Reduce rolling motion of lever-consol & seat assures powerful & precise operations.

#### NEW APC System
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**Dimensions**

HD820R / HD820RLC

![Diagram of HD820R / HD820RLC](image)

**Working Ranges**

**Bucket**

<table>
<thead>
<tr>
<th>Type of bucket</th>
<th>Machine bucket</th>
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<tbody>
<tr>
<td>Bucket capacity (m³)</td>
<td>0.45</td>
</tr>
<tr>
<td>Width</td>
<td>660</td>
</tr>
<tr>
<td>with side cutters, mm</td>
<td>760</td>
</tr>
<tr>
<td>Standard boom</td>
<td>--</td>
</tr>
<tr>
<td>Standard arm</td>
<td>--</td>
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<tr>
<td>Long arm</td>
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**Track Shoes**

<table>
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<th>Type of shoes</th>
<th>Machine bucket</th>
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<tr>
<td>Shoe width mm</td>
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<tr>
<td>Overall width mm</td>
<td>2,600 (2,500</td>
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<tr>
<td>Ground pressure (kPa)</td>
<td>43 (S.D.)</td>
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<tr>
<td>Net weight charge (kg)</td>
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**Lifting Capacities**

**HD820R**

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<tr>
<th>B (m)</th>
<th>0.00</th>
<th>0.50</th>
<th>1.00</th>
<th>1.50</th>
<th>2.00</th>
<th>2.50</th>
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<td>5.00</td>
<td>5.21</td>
<td>5.28</td>
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<td>7.46</td>
<td>7.76</td>
<td>7.91</td>
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<td>HEIGHT</td>
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<td>6.00</td>
<td>6.07</td>
<td>6.34</td>
<td>6.64</td>
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<tr>
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**HD820RLC**

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**Standard Equipment**

- Color monitor display (APC 150)
- Seat belt
- Automatic air conditioner (pressurized)
- Hot & cold box
- Rainproofed windshield wiper
- Emergency exit rear window
- Windshield rear defrosters
- 13-channel corn speaker X2
- Cabin light
- 3 STD working lights (sliding table R, boom L, cab L)
- Rear view monitor R
- Working mode selector (APC 150)
- Auto slowdown, one touch slow
- Boomsmark anti-dig valve
- Sliding anti-counteraction
- Automatic parking brake (sliding table)
- Automatic parking brake (traveling)
- Service port (SPOOL)
- Track guard (14 X 100)
- Air cleaner (double element)
- Drive cleaner
- Cover on the bottom face of traveling frame

**Optional Equipment**

- Transparent roof hatch with sun visor
- Optional, working light (boom R)
- Optional, working light (booth L)
- 2-way option pants (130L/500L/800L/1,000L)
- Option pants (for breather)
- Breather (14 X 100)
- Transparent roof hatch with sun visor
- Cabin fan
- Electric refueling pump
- High performance fuel filter

**NOTE:**
1. Lifting capacities are based on ISO 10581.
2. Lifting capacities shown do not exceed 1200% of machine's hydraulic capacity or 75% of minimum tipping load.
3. Capacities marked with an asterisk (*) are limited by hydraulic capacities.
4. Lifting capacities are based on machine standing on firm, uniform supporting surface.
5. User must make allowances for job conditions such as soft or uneven ground.
6. Weight of all lifting accessories must be deducted from the above lifting capacities.
7. Capacities apply only to the machine as originally manufactured and equipped by KATO WORKS CO., LTD.
8. The operator should be fully acquainted with the Operation Manual before operating the machine.