Dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>HD820 III</th>
<th>HD820 III-LC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bucket capacity:</strong></td>
<td>0.45m³ - 1.1m³ (ISO)</td>
<td></td>
</tr>
<tr>
<td><strong>Engine output:</strong></td>
<td>110kW/2,050min⁻¹ (ISO Net)</td>
<td></td>
</tr>
<tr>
<td><strong>Operating weight:</strong></td>
<td>19,500kg (HD820 III)</td>
<td>20,300kg (HD820 III-LC)</td>
</tr>
</tbody>
</table>

**NOTE:** Illustrations may include optional equipment. KATO products and specifications are subject to improvements and changes without notice.
Gentle with Nature, Gentle with you
Try and Feel the New Epoch of Performance

Roomy and Comfortable Cabin
- Auto air conditioner
- UV cut glass
- Ideal layout of each controlling gear
- Mono piece big & wide side window
- Anti-static-electricity fabric seat
- Wide range adjustable seating position

Powerful Engine
- Max Output: 110kW/2050min-1 (ISO Net) with inter-cooler & turbo-charger

Low Noise Emission
- 99dB(A)*, sound power level

Low Engine Emission
- Complying with the latest emission control

Durable Cooling System
- High performance radiator and aluminum oil cooler
- Easy access for cleaning.

Replacement Interval of Hydraulic Oil: 5,000 hours

*JIS Sound power level.
Technical Specifications

ENGINE

Model: Mitsubishi 6D34-TLE2A, 4 cycle intercooler turbo charged diesel engine
Number of cylinders: 6
Bore & Stroke: 104mm  &  115mm
Total displacement: 110kW/2,050min⁻¹ (ISO Net)
Max. torque: 32.9MPa
Compression ratio: 18.2:1
Max. discharge pressure: 31.4MPa
Max. discharge flow: 232L/min
Pumps: Double variable piston pump and gear pump
Pressure relief valves: Primary and secondary
Oil cooler: Finned tube, forced ventilation
Control valves: 5 + 4 section multiple control valves
CAB & CONTROLS LS

Type: All weather sound suppressed, 1,000mm wide pressed steel cab mounted on 6 point viscouoseat mounting
Right hand lever: Controls the boom & bucket
Left hand lever: Controls the left hand track
Left hand lever (with foot pedal): Controls the left hand track
Monitor display: Engine oil pressure, engine oil filter, hydraulic oil filter, hydraulic oil temperature, water temperature, water level, fuel level, battery charge, APC monitor and air cleaner.
Indicator lamps: Caution lamp & Engine preheater indicator lamp
Working lights: Provided on the boom left side and mounted on the frame
Lubrication chart: Inside the tool box

HYDRAULIC SYSTEM

Pumps: Double variable piston pump and gear pump
Max. discharge flow: 232L/min
Max. discharge pressure: 31.4MPa
Max. discharge pressure (travel circuit only): 32.9MPa
Oil filtration: Full-flow filter with replaceable element, drain cartridge filter, pilot line filter and suction strainer
Control valves: 5 + 4 section multiple control valves
Pilot pump: Gear type
Oil cooler: Finned tube, forced ventilation
Pressure relief valves: Primary and secondary

Air cleaner: Dry type filter

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: 13.5min⁻¹
Tail swing radius: 2,750mm
Min. front swing radius: 3,460mm

Boom, Arm and Bucket

Boom cylinders: Two, double acting
Arm cylinder: One, double acting
Bore & Stroke: 125mm  &  1,315mm
Bucket cylinder: One, double acting
Bore & Stroke: 120mm  &  1,090mm
Lubrication: Grease nipples, with centralized greasing for remote points
Bucket digging force: 136kN
Arm digging force: 99kN
(High power): 104kN
Note: High power can be used with STD arm and short arm

SERVICE DATA

Fuel tank: 230L
Cooling system: 22L
Engine oil: 22L
Swing drive: 5L
Hydraulic oil tank (level): 165L
Ground pressure: 43kPa: HD820II

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 HD820II
Track length: 4,460mm HD820II-LC
Gradeability: 70% (35°), 49 each side HD820II-LC
Travel speed: 2.5km/h
Medium: 0~3.6km/h
Low: 0~2.5km/h
Ground clearance (less grouser bar): 465mm
Track length: 4,170mm HD820II-LC

Boom, Arm and Bucket

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 HD820II
Track length: 4,460mm HD820II-LC
Gradeability: 70% (35°)
Max. drawbar pull: 174.6kN
Ground clearance (less grouser bar): 465mm
Track length: 4,170mm HD820II-LC

CAB & CONTROLS LS
### Lifting Capacities

<table>
<thead>
<tr>
<th>LOAD POINT HEIGHT</th>
<th>LIFT POINT RADIUS</th>
<th>Arm (m)</th>
<th>AT MAXIMUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.00</td>
<td>3.65</td>
<td>6.50</td>
<td>2.85</td>
</tr>
<tr>
<td>4.00</td>
<td>3.65</td>
<td>6.50</td>
<td>2.83</td>
</tr>
<tr>
<td>5.00</td>
<td>3.65</td>
<td>6.50</td>
<td>2.83</td>
</tr>
<tr>
<td>6.00</td>
<td>3.65</td>
<td>6.50</td>
<td>2.83</td>
</tr>
<tr>
<td>7.00</td>
<td>3.65</td>
<td>6.50</td>
<td>2.83</td>
</tr>
<tr>
<td>8.00</td>
<td>3.65</td>
<td>6.50</td>
<td>2.83</td>
</tr>
</tbody>
</table>

### Standard Equipment
- Operating pressure
- Seat belt
- Automatic climate control air conditioner
- He & cool box contained with AC
- Cabin heater
- Automatic tuning AM/FM radio with clock
- 2 speaker stereo
- Working light (Cab left side)
- Working light (Boom right side)
- Working light (Boom right side)
- Cab access step
- Optional piping
- Cab front half guard
- Cab head guard
- Electronic locker
- Cabin fan
- Switch for working light
- Travel alarm

### Optional Equipment
- Tool set
- Low temperature spec
- Air cleaner, double element
- Light temperatue spec
- Seat belt
- Tinted transparent hatch
- Cabin fan
- 2 speaker stereo
- Working light (Cab left side)
- Working light (Boom right side)
- Working light (Boom right side)
- Cab access step
- Optional piping
- Cab front half guard
- Cab head guard
- Electronic locker
- Cabin fan
- Switch for working light
- Travel alarm

### Track Shoes

<table>
<thead>
<tr>
<th>Type of shoes</th>
<th>Grosser shoe</th>
<th>Flat shoe</th>
<th>Triangle shoe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoe width</td>
<td>600</td>
<td>700</td>
<td>800</td>
</tr>
<tr>
<td>Overall width</td>
<td>600</td>
<td>700</td>
<td>800</td>
</tr>
<tr>
<td>Ground pressure (kPa)</td>
<td>600</td>
<td>700</td>
<td>800</td>
</tr>
<tr>
<td>Net weight change (kg)</td>
<td>5.10</td>
<td>4.10</td>
<td>3.70</td>
</tr>
</tbody>
</table>

### Bucket

<table>
<thead>
<tr>
<th>Type of bucket</th>
<th>Bucket weight (kg)</th>
<th>Number of bucket teeth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backhoe bucket</td>
<td>520</td>
<td>4</td>
</tr>
<tr>
<td>Shovel bucket</td>
<td>970</td>
<td>5</td>
</tr>
<tr>
<td>Grab bucket</td>
<td>620</td>
<td>5</td>
</tr>
<tr>
<td>Extension bucket</td>
<td>760</td>
<td>5</td>
</tr>
</tbody>
</table>

### Working Ranges

<table>
<thead>
<tr>
<th>Range</th>
<th>Arm</th>
<th>Saw cut in m</th>
<th>Short Arm</th>
<th>STD Arm</th>
<th>Long Arm</th>
</tr>
</thead>
<tbody>
<tr>
<td>BR-Max. digging radius</td>
<td>9.00</td>
<td>9.47</td>
<td>9.90</td>
<td>10.80</td>
<td></td>
</tr>
<tr>
<td>BR-Max. digging reach at ground level</td>
<td>8.82</td>
<td>9.29</td>
<td>9.74</td>
<td>10.66</td>
<td></td>
</tr>
<tr>
<td>BR-Max. digging depth</td>
<td>5.68</td>
<td>6.21</td>
<td>6.70</td>
<td>7.70</td>
<td></td>
</tr>
<tr>
<td>BR-Max. digging height</td>
<td>9.29</td>
<td>9.95</td>
<td>10.67</td>
<td>11.21</td>
<td></td>
</tr>
<tr>
<td>BR-Max. dumping height</td>
<td>6.38</td>
<td>6.62</td>
<td>6.83</td>
<td>7.26</td>
<td></td>
</tr>
<tr>
<td>BR-Min. dumping height</td>
<td>3.40</td>
<td>3.97</td>
<td>4.27</td>
<td>4.57</td>
<td></td>
</tr>
<tr>
<td>BR-Max. vertical wall</td>
<td>4.86</td>
<td>5.64</td>
<td>6.12</td>
<td>7.17</td>
<td></td>
</tr>
<tr>
<td>BR-Min. swing radius</td>
<td>3.66</td>
<td>3.99</td>
<td>4.36</td>
<td>4.41</td>
<td></td>
</tr>
<tr>
<td>BR-Max. dumping height (2.4m above bottom)</td>
<td>5.45</td>
<td>6.00</td>
<td>6.53</td>
<td>7.56</td>
<td></td>
</tr>
</tbody>
</table>

### Extension Arm

- 1.500mm

### Notes:
1. Lifting capacities are based on ISO 10567.
2. Lifting capacities shown do not exceed 87% of machine hydraulic capacity or 75% of minimum tipping load.
3. Capacities marked with an asterisk (*) are limited by hydraulic capacities.
4. User must make allowances for job conditions such as soft or uneven ground.
5. Lifting capacities shown should not be exceeded. Weight of all lifting accessories must be deducted from the above lifting capacities.
6. Capacities apply to the machine as originally manufactured and equipped by KATO WORKS CO., LTD.
7. This operator should be fully acquainted with the operation manual before operating the machine.