KATO Super Exceed HD 308us
FULLY HYDRAULIC EXCAVATOR

Bucket capacity: 0.12m$^3$ - 0.34m$^3$ (ISO)
Engine output: 40.5kW/2,100min$^{-1}$ (ISO Net)
Operating weight: 7,100kg
7,600kg (with dozer)

Ultra short tail swing
HD308US

Compact but a big performance with ranges & powerful operations

Provides widest digging range in the class
- Max digging radius: 6,470mm
- Max digging depth: 4,120mm
- Max digging height: 7,430mm

Delivers the most powerful digging force in the class
- Bucket digging force: 61.4kN (6.3tonf)
- Arm digging force: 42.2kN (4.3tonf)

Compact operation in the narrow space

Driven by an environment-friendly new-type clean engine featuring high fuel efficiency and low noise
- Fuel consumption: 236g/kW-hour
- JIS sound power level: 99dB(A)

Smart operation in the limited space

Max digging height: 7,430mm
Max digging depth: 4,120mm
Front swing: 1,630mm
Tail swing: 1,190mm
180° swing radius: 2,820mm
1.6m 1.2m 2.8m
Technical Specifications

ENGINE

Model ........................................... ISUZU CC-4JG1, 4 cycle diesel engine
Number of cylinders ................................ 4
Bore & Stroke .................................. 95.4mm × 107mm
Total displacement ................................ 3,095 L
Rated output ..................................... 40.5kW/2,100min−1 (55PS/2,100rpm)
Rated power output ............................... (ISO Net)
Max. torque ...................................... 191N·m/1,800min−1 (19.5kgf·m/1,800rpm) (ISO Net)
Compression ratio ................................ 13:6:1
Combustion system ................................ Direct injection
Specific fuel consumption ......................... 236g/kW·hr (174g/PS·hr)
Cooling system ................................... Pressurized water circulated by a centrifugal pump with thermostat
Lubrication system ................................ Pressurized oil fed by a gear pump through full-flow and bypass cartridge filter
Starter ............................................. Electric, 24V·3.2kW
Generator .......................................... Alternator, 24V·30A
Governor .......................................... Mechanical
Air cleaner ........................................ Dry type filter

*The engine emission is in accordance with 97/68/EC stage II

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 .................................. 12.5m/min
Tail swing radius .................................. 1.190mm
Min. front swing radius .......................... 1.630mm

HYDRAULIC SYSTEM

Pumps .............................................. Double variable piston pump and gear pump
Max. discharge flow .............................. 2×77.7L/min
Max. discharge pressure ......................... 29.4MPa (300kgf/cm²)
Max. discharge pressure (travel circuit only) ................................ 31.4MPa (320kgf/cm²)
Oil filtration ...................................... Full-flow filter with replaceable element, a pilot line filter and suction strainer
Control valves .................................... 6+4 suction 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

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 ...................................... 39 each side
Track adjustment ................................. Grease cylinders with recoil springs
Lubrication ...................................... Sealed-for-life rollers and front idlers with floating seals
Travel speed ...................................... High 0~5.0km/h
Medium 0~3.4km/h
Low 0~2.0km/h
Gradeability ...................................... 70% (35°)
Max. drawbar pull ................................ 65.4kN (6.87kN)
Ground clearance (less grouser bar) .............. 360mm
Track length ...................................... 2,850mm

SERVICE DATA

Fuel tank .......................................... 100 L
Cooling system .................................... 11 L
Engine oil ......................................... 9.6 L
Track drives ...................................... 2×1.3 L
Hydraulic oil tank (level) ......................... 48 L
Hydraulic oil tank (system) ...................... 95 L
In standard figure, with the 1.62m arm, 450mm grouser shoes and 0.28m³ (ISO) bucket.
Operating weight ................................ 7,100kg
Ground pressure .................................. 31.4kPa (0.32kgf/cm²)

BOOM, ARM AND BUCKET

Boom cylinders .................................. One, double acting
Bore & Stroke .................................... 105mm × 960mm
Arm cylinder .................................... One, double acting
Bore & Stroke .................................... 95mm × 920mm
Bucket cylinder .................................. One, double acting
Bore & Stroke .................................... 85mm × 745mm
Lubrication ...................................... Grease nipples, with centralized greasing for remote points
Bucket digging force ............................ 61.4kN (630kgf)
Arm digging force ................................ 42.2kN (430kgf)
CAB & CONTROLS

- Type: All weather sound suppressed, cab mounted on 4 point viscose mounting.
- Right hand lever: Controls the boom & bucket
- Inner right hand lever (with foot pedal): Controls the right hand track
- Inner left hand lever (with foot pedal): Controls the left hand track
- Left hand lever: Controls the arm & swing
- Pilot control: Travel, boom, arm, bucket and swing
- Engine throttle: Electric "Accel dial"

- Meter & gauges: Hour meter, water temperature and fuel level
- Monitor display: Engine oil pressure, engine oil filter, hydraulic oil filter, hydraulic oil temperature, water temperature, water level, fuel level, battery charge, fuel filter water level, 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

- Drink holder
- Hammer

- Combination monitor

- Air conditioner control panel (Option)

- APC (Automatic Power Control) system

- A sample of the air flow
- Multi position operator's seat and adjustable seat suspension.
### Working Ranges

#### Bucket

<table>
<thead>
<tr>
<th>Bucket Capacity</th>
<th>Backhoe Bucket</th>
<th>Dredging Bucket</th>
<th>Steps Forming Bucket</th>
<th>Ditch Cleaning Bucket</th>
<th>Ejector Bucket</th>
</tr>
</thead>
<tbody>
<tr>
<td>m³, ISO</td>
<td>0.12</td>
<td>0.22</td>
<td>0.28</td>
<td>0.34</td>
<td>0.2(ad)</td>
</tr>
<tr>
<td>Bucket Width</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>w/o side cutters, mm</td>
<td>370</td>
<td>440</td>
<td>555</td>
<td>650</td>
<td>770</td>
</tr>
<tr>
<td>with side cutters, mm</td>
<td>480</td>
<td>555</td>
<td>670</td>
<td>770</td>
<td>890</td>
</tr>
<tr>
<td>Bucket Weight</td>
<td>kg</td>
<td>170</td>
<td>190</td>
<td>210</td>
<td>230</td>
</tr>
<tr>
<td>Number of bucket teeth</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Shape of Bucket

- **Standard arm**: ![](image1)
- **Long arm**: ![](image2)
- **Extension arm**: ![](image3)

- General purpose: ●
- Light work: ▲
- Unusable: X
- Yellow colored area means standard.

### Track Shoes

<table>
<thead>
<tr>
<th>Type of Shoes</th>
<th>Pat Crawler</th>
<th>Grouser Shoe</th>
<th>Flat Shoe</th>
<th>Triangle Shoe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoe width</td>
<td>mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall width</td>
<td>mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground pressure</td>
<td>kPa (kg/cm²)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net weight change</td>
<td>kg</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Yellow colored area means standard.
### Lifting Capacities

**HD308US** 450mm Shoe, 3.83m Boom, 1.62m Arm, 0.28m³ Bucket (230kg) WITHOUT DOZER

<table>
<thead>
<tr>
<th>LOAD POINT HEIGHT B (m)</th>
<th>LOAD RADIUS A (m)</th>
<th>2.00</th>
<th>3.00</th>
<th>4.00</th>
<th>5.00</th>
<th>RATING AT MAXIMUM REACH</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.00</td>
<td>4.00</td>
<td>*1.54</td>
<td>*1.54</td>
<td>*1.47</td>
<td>*1.47</td>
<td>0.96</td>
</tr>
<tr>
<td>3.00</td>
<td>2.79</td>
<td>*2.01</td>
<td>*2.01</td>
<td>*1.69</td>
<td>*1.44</td>
<td>1.19</td>
</tr>
<tr>
<td>2.00</td>
<td>2.62</td>
<td>*2.62</td>
<td>1.68</td>
<td>1.35</td>
<td>1.15</td>
<td>0.92</td>
</tr>
<tr>
<td>1.00</td>
<td>2.54</td>
<td>2.54</td>
<td>1.59</td>
<td>1.26</td>
<td>1.10</td>
<td>0.88</td>
</tr>
<tr>
<td>0.00</td>
<td>2.45</td>
<td>2.45</td>
<td>1.53</td>
<td>1.21</td>
<td>1.07</td>
<td>0.85</td>
</tr>
<tr>
<td>-1.00</td>
<td>3.03</td>
<td>*3.03</td>
<td>2.45</td>
<td>2.42</td>
<td>1.51</td>
<td>1.18</td>
</tr>
<tr>
<td>-2.00</td>
<td>3.04</td>
<td>*3.04</td>
<td>2.45</td>
<td>2.45</td>
<td>1.52</td>
<td>1.20</td>
</tr>
<tr>
<td>-3.00</td>
<td>3.26</td>
<td>*3.26</td>
<td>2.29</td>
<td>2.29</td>
<td>1.98</td>
<td>1.67</td>
</tr>
</tbody>
</table>

**HD308US** 450mm Shoe, 3.83m Boom, 2.07m Arm, 0.22m³ Bucket (210kg) WITHOUT DOZER

<table>
<thead>
<tr>
<th>LOAD POINT HEIGHT B (m)</th>
<th>LOAD RADIUS A (m)</th>
<th>2.00</th>
<th>3.00</th>
<th>4.00</th>
<th>5.00</th>
<th>6.00</th>
<th>RATING AT MAXIMUM REACH</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.00</td>
<td>5.00</td>
<td>*1.18</td>
<td>*1.18</td>
<td></td>
<td></td>
<td></td>
<td>0.89</td>
</tr>
<tr>
<td>5.00</td>
<td>4.00</td>
<td>*1.26</td>
<td>*1.26</td>
<td>1.25</td>
<td>1.02</td>
<td></td>
<td>0.82</td>
</tr>
<tr>
<td>3.00</td>
<td>3.70</td>
<td>*1.68</td>
<td>*1.48</td>
<td>1.48</td>
<td>1.22</td>
<td>0.99</td>
<td>0.81</td>
</tr>
<tr>
<td>2.00</td>
<td>2.90</td>
<td>*2.31</td>
<td>2.24</td>
<td>1.72</td>
<td>1.38</td>
<td>1.17</td>
<td>0.83</td>
</tr>
<tr>
<td>1.00</td>
<td>2.60</td>
<td>2.03</td>
<td>1.61</td>
<td>1.28</td>
<td>1.11</td>
<td>0.89</td>
<td>0.81</td>
</tr>
<tr>
<td>0.00</td>
<td>3.02</td>
<td>2.46</td>
<td>1.91</td>
<td>1.53</td>
<td>1.21</td>
<td>1.07</td>
<td>0.84</td>
</tr>
<tr>
<td>-1.00</td>
<td>3.07</td>
<td>2.41</td>
<td>1.86</td>
<td>1.49</td>
<td>1.17</td>
<td>1.05</td>
<td>0.82</td>
</tr>
<tr>
<td>-2.00</td>
<td>3.27</td>
<td>2.47</td>
<td>1.92</td>
<td>1.54</td>
<td>1.22</td>
<td></td>
<td>1.07</td>
</tr>
<tr>
<td>-3.00</td>
<td>3.27</td>
<td>2.47</td>
<td>1.92</td>
<td>1.54</td>
<td>1.22</td>
<td></td>
<td>1.49</td>
</tr>
</tbody>
</table>

**NOTE:**
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. 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. Lifting capacities shown should not be exceeded. 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.

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### Standard Equipment
- New APC mode
- New auto-slow • One-touch-slow
- Multi-mode display monitor
- Adjustable monitor alarm
- 2 service hour meter
- 3 traveling mode
- Automatic travel speed change
- Spring assisted pull-up front window
- 4 points viscous damping cab suspension
- Multi position operator’s seat
- Adjustable seat suspension
- Adjustable speed window wiper
- Cabin light connected to cabin door
- 2 working lights
- (Upper front right side & Boom left side)
- Swing shockless valve
- Automatic slew parking brake
- Automatic travel parking brake
- One free service circuit for attachments
- Front window washer (2 sprays)
- Seat belt
- Automatic climate control air conditioner
- Cabin heater
- Auto tuning AM/FM radio with clock
- 2 speaker stereo
- Working light (Cab left side)
- Working light (Boom right side)
- Cab access step
- Optional piling
- Cab front half guard
- Cab front full guard
- Electronic horn
- Swing warning light
- Travel alarm
- Refueling pump
- Air cleaner, double element
- Low temperature spec
- Tool set

### Optional Equipment
- Track guard, 1 pcs each side
- Track guard, 2 pcs each side
- Dozer
- Rubber crawler (450mm)