### Standard & Long Arm Specifications

<table>
<thead>
<tr>
<th>Component</th>
<th>Standard Arm</th>
<th>Long Arm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Maximum Blade Height</strong></td>
<td>15.7” (398 mm)</td>
<td>16.0” (405 mm)</td>
</tr>
<tr>
<td><strong>B. Maximum Blade Depth</strong></td>
<td>21.5” (546 mm)</td>
<td>21.0” (534 mm)</td>
</tr>
<tr>
<td><strong>C. Maximum Height of Working Equipment with Arm Retracted</strong></td>
<td>138.6” (3522 mm)</td>
<td>138.6” (3520 mm)</td>
</tr>
<tr>
<td><strong>D. Maximum Working Equipment Radius with Boom @ Maximum Height</strong></td>
<td>93.1” (2365 mm)</td>
<td>94.2” (2393 mm)</td>
</tr>
<tr>
<td><strong>E. Maximum Reach at Ground Level</strong></td>
<td>205.5” (5219 mm)</td>
<td>216.8” (5507 mm)</td>
</tr>
<tr>
<td><strong>F. Maximum Radius of Working Equipment</strong></td>
<td>180.0” (4571 mm)</td>
<td>187.2” (4755 mm)</td>
</tr>
<tr>
<td><strong>G. Maximum Bucket Tooth Height</strong></td>
<td>123.0” (3125 mm)</td>
<td>129.0” (3276 mm)</td>
</tr>
<tr>
<td><strong>H. Maximum Dump Height</strong></td>
<td>120.7” (3066 mm)</td>
<td>132.5” (3366 mm)</td>
</tr>
<tr>
<td><strong>I. Maximum Depth of Vertical Wall which can be Excavated</strong></td>
<td>85.6” (2175 mm)</td>
<td>102.5” (2604 mm)</td>
</tr>
<tr>
<td><strong>J. Maximum Dig Depth</strong></td>
<td>122.0” (3098 mm)</td>
<td>154.1” (3914 mm)</td>
</tr>
<tr>
<td><strong>Bucket Pivot Angle</strong></td>
<td>186°</td>
<td>186°</td>
</tr>
</tbody>
</table>

### Extendable Arm Specifications

<table>
<thead>
<tr>
<th>Component</th>
<th>Retracted</th>
<th>Extended</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Maximum Blade Height</strong></td>
<td>15.4” (390 mm)</td>
<td>15.4” (390 mm)</td>
</tr>
<tr>
<td><strong>B. Maximum Blade Depth</strong></td>
<td>21.1” (546 mm)</td>
<td>21.1” (535 mm)</td>
</tr>
<tr>
<td><strong>C. Maximum Height of Working Equipment with Arm Retracted</strong></td>
<td>139.7” (3549 mm)</td>
<td>139.7” (3549 mm)</td>
</tr>
<tr>
<td><strong>D. Maximum Working Equipment Radius with Boom @ Maximum Height</strong></td>
<td>89.1” (2262 mm)</td>
<td>86.2” (2190 mm)</td>
</tr>
<tr>
<td><strong>E. Maximum Reach at Ground Level</strong></td>
<td>191.6” (4866 mm)</td>
<td>221.0” (5614 mm)</td>
</tr>
<tr>
<td><strong>F. Maximum Radius of Working Equipment</strong></td>
<td>195.9” (4977 mm)</td>
<td>224.7” (5709 mm)</td>
</tr>
<tr>
<td><strong>G. Maximum Bucket Tooth Height</strong></td>
<td>175.6” (4459 mm)</td>
<td>188.3” (4782 mm)</td>
</tr>
<tr>
<td><strong>H. Maximum Dump Height</strong></td>
<td>121.1” (3077 mm)</td>
<td>132” (3404 mm)</td>
</tr>
<tr>
<td><strong>I. Maximum Depth of Vertical Wall which can be Excavated</strong></td>
<td>69.0” (1752 mm)</td>
<td>100.4” (2550 mm)</td>
</tr>
<tr>
<td><strong>J. Maximum Dig Depth</strong></td>
<td>122.0” (3098 mm)</td>
<td>154.1” (3914 mm)</td>
</tr>
<tr>
<td><strong>Bucket Pivot Angle</strong></td>
<td>184°</td>
<td>184°</td>
</tr>
</tbody>
</table>
A. Clearance, Upperstructure to Ground line ......................... 20.1" (511 mm)
B. Groundline to top of engine cover ................................. 58.1" (1476 mm)
C. Minimum radius in transport position-Standard Arm ........... 137.5" (3492 mm)
   Minimum radius in transport position-Long Arm ............... 137.8" (3499 mm)
   Minimum radius in transport position-Extendable-retracted.. 142.9" (3630 mm)
D. Overall length in transport position-Standard Arm ............ 192.1" (4879 mm)
   Overall length in transport position-Long Arm ............... 192.5" (4889 mm)
   Overall length in transport position-Extendable Arm ........ 197.6" (5020 mm)
   Overall length in transport position-Extendable-extended.... 198.8" (5050 mm)
E. Blade height ..................................................................... 14.9" (379 mm)
F. Length of track on ground ................................................ 61.5" (1562 mm)
G. Machine centerline to blade ........................................... 64.5" (1638 mm)
H. Overall length of track assembly ..................................... 78.9" (2005 mm)

A. Cab Height ................................................................. 92.85" (2358 mm)
B. Track width ................................................................. 12.6" (320 mm)
C. Blade width ................................................................. 60.6" (1540 mm)
Track Lug Height ............................................................... 0.98" (25 mm)

A. Machine centerline to working equipment centerline, left hand rotation .................... 15.7" (398 mm)
B. Machine centerline to working equipment centerline, right hand rotation .............. 24.1" (611 mm)
C. Minimum turning radius ................................................ 60.0" (1524 mm)
D. Swing clearance, rear of upperstructure .................................. 54.7" (1390 mm)
E. Working width maximum right hand rotation ........................................... 90.9" (2309 mm)
Tail Swing overhang .......................................................... 24.4" (620 mm)
**MACHINE PERFORMANCE**

Operating Weight (includes standard equipment and 24" bucket) (SAE J732)
- With Canopy, Standard Arm ...................... 7756 lbs. (3518 kg)
- With Cab, Heat/Air Conditioning ................. 8019 lbs. (3637 kg)
- With Canopy, Extendable Arm .................. 8301 lbs. (3765kg)
- With Canopy, Long Arm .......................... 8166 lbs. (3704kg)

Travel Speed
- Low Range ........................................... 1.7 mph (2,7 km/hr)
- High Range .......................................... 3.2 mph (5,15 km/hr)

Arm (Stick) Digging Force ............................. 4000 lbs. (17792 N)
Bucket Digging Force ................................. 7000 lbs. (31136 N)

**HYDRAULIC SYSTEM**

Pump Type ............................................. Dual Outlet Piston with Gear
Pump Capacity ....................................... 2 x 10.1 GPM (38,4 L/min)
System Relief Pressure ............................. 3480 PSI (270 Bar)
Auxiliary Relief ...................................... 2600 PSI (180 Bar)
Auxiliary Flow ........................................ 15.9 GPM (64,0 L/min)
Control Valves ....................................... (1) 10-Spool, closed center
Drive Motors ......................................... (2) Axial Piston Motors
Swing Motor .......................................... Orbit Motor
Slew Speed ............................................. 9.2 RPM
Boom Swing (Left) ..................................... 90°
Boom Swing (Right) .................................... 50°

Hydraulic Function Times
- Bucket ............................................... Curl - 2.6 Seconds Dump - 1.8 Seconds
- Arm (cushion out) .................. Retract - 3.3 Seconds Extend - 2.7 Seconds
- Boom (cushion up) ............... Raise - 4.6 Seconds Lower - 5.4 Seconds
- Boom Swing (cushion Left/Right) .... Left - 6.2 Seconds Right - 5.7 Seconds
- Blade ............................................. Raise - 2.9 Seconds Lower - 3.2 Seconds

**HYDRAULIC CYLINDERS**

<table>
<thead>
<tr>
<th>Component</th>
<th>Bore Diameter</th>
<th>Rod Diameter</th>
<th>Stroke Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom (cushion up)</td>
<td>3.00 in. (76,2 mm)</td>
<td>1.75 in. (44,5 mm)</td>
<td>25.09 in. (637,3 mm)</td>
</tr>
<tr>
<td>Arm (cushion extend)</td>
<td>2.75 in. (69,9 mm)</td>
<td>1.50 in. (38,1 mm)</td>
<td>23.62 in. (599,9 mm)</td>
</tr>
<tr>
<td>Bucket</td>
<td>2.75 in. (69,9 mm)</td>
<td>1.75 in. (44,5 mm)</td>
<td>18.39 in. (467,1 mm)</td>
</tr>
<tr>
<td>Boom Swing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(cushion left and right)</td>
<td>3.00 in. (76,2 mm)</td>
<td>1.50 in. (38,1 mm)</td>
<td>20.65 in. (524,5 mm)</td>
</tr>
<tr>
<td>Blade</td>
<td>3.50 in. (88,9 mm)</td>
<td>1.75 in. (44,5 mm)</td>
<td>7.28 in. (184,9 mm)</td>
</tr>
</tbody>
</table>
**ENGINE/ELECTRICAL**

Make/Model ................................... Kubota/V2403
Fuel/Cooling .................................. Diesel/Liquid
Horsepower (SAE Gross) ....................... 41.8 HP (31.2 kW)
Horsepower (SAE Net) ........................ 40.5 HP (30.2 kW)
Maximum Governed RPM ..................... 2200 RPM
Torque @ 1500 RPM (SAE Net) ............ 102.5 ft. – lbs. (139 Nm)
Number of Cylinders ......................... 4
Displacement ................................... 134 cu. in. (2.2 L)
Bore x Stroke .................................. 3.42 x 3.64 in. (87 x 92.4 mm)
Lubrication ..................................... Forced
Filter ............................................. Cartridge Type - Full Flow
Air Cleaner ..................................... Dry replaceable cartridge with safety element
Alternator ...................................... 12 volt; 90 amps
Battery .......................................... 12 volt; 530 cold cranking amps @ 0°F (-18°C);
                                         75 minute reserve capacity
Starter .......................................... 12 volt; 2.7 HP (2.0 kW) Gear Reduction Type

**UNDERCARRIAGE**

Undercarriage .................................. Crawler-Type Tractor Design
Track Rollers .................................... Sealed with Reinforced Box-Section Track Roller Frame
Track Adjusters ................................. Grease Type with Shock
                                         Absorbing Recoil Springs
Track Type (Standard) ......................... Half Pitch Rubber
Width ............................................. 12.6” (320 mm)
Track Type (Optional) ......................... Steel Shoe
Width ............................................. 12.6” (320 mm)
Number of Track Rollers ..................... 4 each side
Ground Pressure-Rubber Tracks .......... 4.22 PSI (29.1 kPa)
Ground Pressure-Steel Tracks ............ 4.31 PSI (29.7 kPa)

**CAPACITIES**

Fuel Tank ..................................... 12.3 gal. (46.6 L)
Cooling System ................................. 4.5 gal. (17.0 L)
Engine Oil and Filter ........................ 7.5 qts. (7.1 L)
Hydraulic Reservoir ......................... 7.8 gal. (29.5 L)

**DRIVE SYSTEM**

Final Drive ................................. Each track is driven by a hydrostatic
                                         axial piston motor
Type of Reduction ........... Two stage planetary gear reduction 36.4:1
Max. Drawbar Pull ............ 7830 lbf. (34838 N)
Maximum Gradability .......... 30°
**Options/Accessories**

- AM/FM Stereo Radio
- Cab/Canopy Light Kit
- Cab Enclosure, Vinyl
- Catalytic Exhaust Purifier Kit
- Counterweight
- Extendable Arm
- FOPS Kit
- Keyless Start
- Lifting Chain Kit
- Secondary Auxiliary Hydraulics
- Special Applications Kit
- Steel Tracks
- TOPS/ROPS Cab
  - with Heat & Air Conditioning
- Travel Motion Alarm

**Attachments**

- Auger
- Grading Blade
- Grading Bucket
- Grapple, 3-Tine
- Hydra-Tilt
- Hydraulic Breaker
- Hydraulic Clamp
- Plate Compactor
- Power Tilt
- Ripper
- Trencher
- Trenching Buckets

**Controls**

- Vehicle Steering ............. Direction and speed controlled by two hand levers or foot levers
- Excavator Functions ........ Two hydraulic joysticks control boom, arm, bucket and cab swing. Foot pedal controls boom swing. The blade is controlled by a separate lever. Switches on right hand joystick control auxiliary hydraulic functions.
- Service Brake (Travel) ... Hydraulic lock on motor
- Parking Brake (Travel) ... Hydraulic lock on motor
- Service Brake (Swing) ... Hydraulic lock on motor
- Holding Brake (Swing) ... Pin lock

**Standard Features**

- 5’ Dozer Blade
- 12.6” Half Pitch Rubber Track
- Auxiliary Hydraulics with Quick Couplers
- Control Console Locks
- Control Pattern Selector Valve (ISO/STD)
- Engine Shutdown System
- Fingertip Auxiliary Hydraulic Control
- Horn
- Hydraulic Joystick Controls
- Retractable Seat Belt
- Spark Arrestor Muffler
- Suspension Seat with High Back
- *TOPS/ROPS Canopy
- Two-Speed Travel
- Vandalism Protection
- Working Lights
- X-Change™ (Attachment Mounting System)
- Warranty: 12 Months, Unlimited Hours

*Roll Over Protective Structure (ROPS) - Meets Requirements of SAE-J1040C
*Tip Over Protective Structure (TOPS) - Meets Requirements of ISO/DIS 12117

**Instrumentation**

**Right of Operator Seat**

- Auxiliary Mode Indicator
- Console Indicator
- Hourmeter/Job Clock/Tachometer
- Engine/Hydraulic System Indicators
- Engine Temperature Gauge
- Fuel Gauge
- Low Fuel Indicator
- Pre-Heat Indicator
- Two-Speed Indicator

**Standard Features**

*Roll Over Protective Structure (ROPS) - Meets Requirements of SAE-J1040C
*Tip Over Protective Structure (TOPS) - Meets Requirements of ISO/DIS 12117
**LIFT CHARTS**

**WARNING**

OVERLOAD CAN TIP THE EXCAVATOR AND CAUSE INJURY OR DEATH
- Do not lift or hold any load that exceeds these ratings at their specified load radii and height.
- Total rated load is shown. The weight of all lifting devices must be deducted to determine the net load that can be lifted.

Where applicable, specifications conform to ISO Standards. Specifications are subject to change without notice.
Lift Point is bucket hinge point with standard bucket attached and bucket cylinder fully extended.

**EXCAVATOR MODEL 331**

- **CIRCUIT PRESSURES**
  - WORKING: 240 bar (3480 psi)
  - HOLDING: 270 bar (3915 psi)
- **BOOM LENGTH**: 2400 mm (94.5 in)
- **ARM LENGTH**: 1200 mm (47.2 in)
- **COUNTERWEIGHT**: 83.9 kg (185 lb)
- **STANDARD BUCKET**: 609 mm (24.0 in)
  - 97.5 kg (215 lb)

<table>
<thead>
<tr>
<th>LIFT POINT HEIGHT</th>
<th>RATED LIFT CAPACITY OVER BLADE, BLADE DOWN - kg(lb)</th>
<th>RATED LIFT CAPACITY OVER BLADE, BLADE UP - kg(lb)</th>
<th>RATED LIFT CAPACITY OVER SIDE, BLADE UP - kg(lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LIFT RADIUS - mm (in.)</td>
<td>LIFT @ MAXIMUM RADIUS, kg (lb) @ mm (in)</td>
<td>LIFT RADIUS - mm (in.)</td>
</tr>
<tr>
<td>mm (in.)</td>
<td>2000 (78.7)</td>
<td>3000 (118.1)</td>
<td>4000 (157.5)</td>
</tr>
<tr>
<td>3000 (118.1)</td>
<td>599 (1321)</td>
<td>551 (1214)</td>
<td>558 (1231)</td>
</tr>
<tr>
<td>2000 (78.7)</td>
<td>575 (1268)</td>
<td>583 (1286)</td>
<td>640 (1412)</td>
</tr>
<tr>
<td>1000 (39.4)</td>
<td>987 (1936)</td>
<td>658 (1451)</td>
<td>733 (1616)</td>
</tr>
<tr>
<td>Ground</td>
<td>1096 (2416)</td>
<td>743 (1637)</td>
<td>1054 (2324)</td>
</tr>
<tr>
<td>-1000 (-39.4)</td>
<td>1116 (2460)</td>
<td>833 (1836)</td>
<td>1116 (2460)</td>
</tr>
</tbody>
</table>

* Rated Hydraulic Lift Capacity
**WARNING**

**OVERLOAD CAN TIP THE EXCAVATOR AND CAUSE INJURY OR DEATH**

- Do not lift or hold any load that exceeds the weight ratings at their specified load radii and height.
- Total rated load is shown. The weight of all lifting devices must be deducted to determine the net load that can be lifted.

Where applicable, specifications conform to ISO Standards. Specifications are subject to change without notice. Lift Point is bucket hinge point with standard bucket attached and bucket cylinder fully extended.

### Bobcat 331 Excavator Specifications June 3, 2009

#### EXCAVATOR MODELS

- **331 Equipped with Long Arm**
- **331E Equipped with Long Arm**
- **334**

**CIRCUIT PRESSURES**
- **Working:** 240 bar (3480 psi)
- **Holding:** 270 bar (3915 psi)

**BOOM LENGTH**
- 2400 mm (94.5 in)

**ARM LENGTH**
- 1500 mm (59.1 in)

**COUNTERWEIGHT**
- 235 kg (517 lbs)

**STANDARD BUCKET**
- 609 mm (24.0 in)
- 97.5 kg (215 lbs)

**Rated Hydraulic Lift Capacity**

#### Lift Point Specifications

<table>
<thead>
<tr>
<th>Lift Point Height</th>
<th>Lift Radius - mm (in)</th>
<th>Lift @ Maximum Radius, kg (lb) @ mm (in)</th>
<th>Lift @ Maximum Radius, kg (lb) @ mm (in)</th>
<th>Lift @ Maximum Radius, kg (lb) @ mm (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2000</strong></td>
<td>2000 (78.7)</td>
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</tr>
<tr>
<td><strong>3000</strong></td>
<td>3000 (118.1)</td>
<td>3000 (118.1)</td>
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<td>3000 (118.1)</td>
</tr>
<tr>
<td><strong>4000</strong></td>
<td>4000 (157.5)</td>
<td>4000 (157.5)</td>
<td>4000 (157.5)</td>
<td>4000 (157.5)</td>
</tr>
</tbody>
</table>

### Bobcat 331E Excavator Specifications June 3, 2009

#### EXCAVATOR MODELS

- **331 Equipped with Extendable Arm**
- **334 Equipped with Extendable Arm**
- **331E**

**CIRCUIT PRESSURES**
- **Working:** 240 bar (3480 psi)
- **Holding:** 270 bar (3915 psi)

**BOOM LENGTH**
- 2400 mm (94.5 in)

**ARM LENGTH**
- 1196 mm (47.1 in)
- **Retracted:** 2019 mm (79.5 in)

**COUNTERWEIGHT**
- 235 kg (517 lbs)
- 609 mm (24.0 in)
- 97.5 kg (215 lbs)

**Rated Hydraulic Lift Capacity**

#### Lift Point Specifications

<table>
<thead>
<tr>
<th>Lift Point Height</th>
<th>Lift Radius - mm (in)</th>
<th>Lift @ Maximum Radius, kg (lb) @ mm (in)</th>
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<th>Lift @ Maximum Radius, kg (lb) @ mm (in)</th>
</tr>
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<tbody>
<tr>
<td><strong>2000</strong></td>
<td>2000 (78.7)</td>
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</tr>
<tr>
<td><strong>3000</strong></td>
<td>3000 (118.1)</td>
<td>3000 (118.1)</td>
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<td>3000 (118.1)</td>
</tr>
<tr>
<td><strong>4000</strong></td>
<td>4000 (157.5)</td>
<td>4000 (157.5)</td>
<td>4000 (157.5)</td>
<td>4000 (157.5)</td>
</tr>
</tbody>
</table>

* * *
**WARRANTY**

One Year Unlimited Hours .............. Standard
24 Month, 2000 Hour Limit .............. Optional
36 Month, 3000 Hour Limit .............. Optional
60 Month, 5000 Hour Limit
   (Municipalities Only) .............. Optional

**SERVICEABILITY**

Access is available to the following through the rear tailgate or side access hood:
- Air cleaner with indicator
- Battery
- Cooling system (engine oil and hydraulic oil coolers) for cleaning
- Control Valve
- Engine oil and fuel filters
- Engine oil level
- Fuel Fill
- Hydraulic valve bank
- Starter
- Sight gauges for hydraulic level

Tailgate and access cover have locks for vandal proofing.
Easy access to all grease points.
Central grease point for swing bearing, swing pinion, and offset cylinder

**SAFETY**

Seat Belt (Std.) .......................................... Should always be worn when operating the excavator
Grab Handles (Std.).................................... Should always be used when entering/exiting excavator.
Front Working Lights (Std.) ........................ Use for indoor and low light operation.
Control Lockout (Std.) ............................... Operator console shall lock out work group and travel functions when in
the upright position.
House Swing Lock (Std.) ............................ A lock pin shall be provided to lock the upper structure to the
undercarriage for transporting
Operator’s Handbook .............................. Weather resistant operator handbook written in English will be
attached to inside of cab, providing operational instructions and
warnings by decals with pictorials and international symbols plus
some messages in four basic languages: English, French, German
and Spanish.

**TRAINING RESOURCES**

*Bobcat Excavator Operator Training Course*
  4-hour course provides video, classroom and hands-on training
*Bobcat Excavator Service Safety Training Course*
  2-hour course provides video, classroom and hands-on training