• Engine power, gross: 79.4 kW 107 hp
• Operating weight:
  LC: 13.2 ~ 13.7 t
  29020 ~ 30190 lb
  LCM: 14.5 ~ 15.3 t
  31880 ~ 33690 lb
• Buckets (SAE):
  600 ~ 950 l
  0.78 ~ 1.24 yd³
• Low-emission, turbocharged Cummins diesel engine with direct injection
• Integrated mode selection system and electronically controlled system (ACS)
• 2 variable displacement axial piston pumps. Independent and simultaneous movements of the digging equipment are controlled by the “Automatic sensing work mode.”
• Cab
  – Ergonomic environment
  – Low sound level
  – Filtered air
  – Hydraulic dampening mounts
• Strong attachment, produced by robotic welding
• High lifting, breakout and tearout forces for tough digging conditions
• Undercarriage
  – LC: Long undercarriage for good stability
  – LCM: Uses 20 ton class undercarriage components and offers higher ground clearance
• Hammer/shear and Volvo quick coupler piping as standard equipment
• Prepared for a number of optional items
**ENGINE**

The engine is a low-emission, turbocharged, 4-stroke diesel engine with water cooling, direct injection and aftercooler, especially developed for excavator use.

The machine can work at any job site, contributing to good fuel economy, low sound level, less wear and a longer life.

Air filter: 3-stage, includes pre-cleaner

Automatic idling system: Reduces the engine speed to an idling speed when levers and pedals are not activated.

- **Maker** ......................... CUMMINS
- **Model** .......................... B3.9-C
- **Power output at** ............... 35 r/s  2100 rpm
- **Net (ISO 9249/DIN 6271)** 73.5 kW  99 hp
- **Gross (SAE J1349)** ........... 79.4 kW  107 hp
- **Max. torque** ................... 431 Nm at 1600 rpm  318 lb-ft at 1600 rpm
- **No. of cylinders** .............. 4
- **Displacement** ................... 3.9 l  239 cu.in
- **Bore** .......................... 102 mm  4.02”
- **Stroke** ......................... 120 mm  4.72”

**ELECTRICAL SYSTEM**

Well-protected electrical system with high capacity. Double lock harness plugs are waterproof to ensure secure connections and prevent corrosion. The relays and solenoid valves are shielded to prevent accidental damage or terminal contact.

The master switch, for disconnecting the battery, is standard.

- **ACS system**, providing integrated mode selection functions and self-diagnostic mode, is standard.

- **Voltage** .......................... 24 V
- **Batteries** ....................... 2 x 12 V
- **Battery capacity** .............. 150 Ah
- **Alternator** ...................... 24 V / 50 A

**SERVICE REFILL CAPACITIES**

- **Fuel tank** ....................... 260 l  69 gal
- **Hydraulic system, total** ....... 235 l  62 gal
- **Hydraulic tank** .................. 130 l  34 gal
- **Engine oil** ........................ 17.5 l  5 gal
- **Engine coolant** ................. 23.6 l  6 gal
- **Swing reduction unit** .......... 3.8 l  1.0 gal
- **Travel reduction units** ......... LC .......................... 2 x 3.5 l  2 x 0.9 gal
                                           LCM ........................... 2 x 5.8 l  2 x 1.5 gal

**SWING SYSTEM**

The superstructure is swung by the means of an axial piston motor and a planetary reduction unit. Automatic swing holding brake and anti-rebound valve are standard.

Max. swing speed ...................... 10.9 rpm

**UNDERCARRIAGE**

The undercarriage has an X-shaped frame. The greased and sealed track chain is standard.

- **No. of track pads** .............. LC .......................... 2 x 46
                                           LCM ........................... 2 x 42
- **Link pitch** ...................... LC .......................... 171 mm  6.7”
                                           LCM ........................... 190 mm  7.5”
- **Shoe width, triple grouser** .... LC .......................... 500/600(Std.)/700/750 mm  20”/24”(Std.)/28”/30”
                                           LCM ........................... 600(Std.)/700/800/900 mm  24”(Std.)/28”/32”/36”
- **No. of lower track rollers** .... LC .......................... 2 x 7
                                           LCM ........................... 2 x 6
- **No. of upper rollers** .......... LC .......................... 2 x 1
                                           LCM ........................... 2 x 2

**DRIVE**

Each track is powered by an automatic two speed travel motor. The track brakes are multi-disc, spring-applied and hydraulic-released.

The travel motors, brake and planetary gears are well-protected in the track frame.

- **LC**
  - Max. tractive effort  ...................... 109.8 kN  24700 lb
  - Max. travel speed(1st/2nd) .............. 3.2/5.5 km/h  2.0/3.4 mph
  - Gradeability  .......................... 35°  70 %

- **LCM**
  - Max. tractive effort ...................... 140.2 kN  31530 lb
  - Max. travel speed(1st/2nd) .............. 2.5/4.3 km/h  1.6/2.7 mph
  - Gradeability  .......................... 35°  70 %
**HYDRAULIC SYSTEM**

The hydraulic system, named “Automatic Sensing Work Mode”, is designed for high productivity, high digging capacity, high maneuvering precision and good fuel economy.

The summation system, boom priority, arm priority, swing priority, and regeneration system of the boom and arm flows are provided for the best operation.

The following important functions are included in the system.

- **Summation system**: Providing full use of the pump oil flow.
- **Boom priority**: Providing priority to the boom operation for fast raising during loading or deep excavation.
- **Arm priority**: Providing priority to the arm operation for faster cycle times during leveling and for increased bucket filling factors while digging.
- **Swing priority**: Providing priority to the swing operation for faster swing during simultaneous operations.
- **Regeneration system**: Enhancing the cylinder life cycle, preventing cavitation and providing priority to other movements during simultaneous operations.
- **Power boost**: All digging and lifting forces are increased.
- **Holding valves**: Boom and arm holding valves are standard.
- **Power Max**: All function speeds are increased.

**Pumps**

- **Main pumps**: 
  - Type: 2 x variable displacement axial piston pumps
  - Maximum flow: 2 x 120 l/min 2 x 32 gpm

- **Pilot pump**: 
  - Type: Gear pump
  - Maximum flow: 21 l/min 5.5 gpm

**Hydraulic motors**

- **Travel**: 2 x variable displacement axial piston motors
- **Swing**: Fixed displacement piston motor with mechanical brake

**Relief valve setting**

- **Attachment**: 31.4/34.3 MPa 4550/4980 psi
- **Travel circuit**: 34.3 MPa 4980 psi
- **Swing circuit**: 24.5 MPa 3560 psi
- **Pilot circuit**: 3.9 MPa 570 psi

**Hydraulic cylinders**

- **Boom**: 2
  - bore x stroke: Ø 105 mm x 985 mm Ø 4.1” x 38.8”
- **Arm**: 1
  - bore x stroke: Ø 120 mm x 1045 mm Ø 4.7” x 41.1”
- **Bucket**: 1
  - bore x stroke: Ø 100 mm x 865 mm Ø 3.9” x 34.1”

**CAB**

Easily accessible cab with a wide door and lined with sound-absorbing material.

The cab, which is supported by hydraulic dampening mounts to reduce shock and vibration, has all-around visibility. The front windshield can slide up into the ceiling, and the lower front glass can be removed.

**Integrated air-conditioning and heating system**:

The pressurized and filtered cab air is supplied by a 4-speed fan. The air is distributed via 8 vents.

**Ergonomic operator’s seat**:

The adjustable seat and control consoles move independently to accommodate the operator well. The seat has eight different adjustments and a seat belt to meet any operator’s requirement.

**Sound level (Preliminary)**: According to the Directive 86/662/EEC.

- **Exterior noise (ISO 6395)**
  - mean value of LWA (sound power level) 100 dB(A)
- **Operator’s position (ISO 6396)**
  - with the door closed
  - mean value of LPA (sound pressure level) 74 dB(A)
GROUND PRESSURE

• **LC** undercarriage with Std. 4.6 m, 15' 1" boom, Std. 2.5 m, 8' 2" arm, 394 kg, 870 lb bucket and 1750 kg, 3,860 lb counterweight.

<table>
<thead>
<tr>
<th>Description</th>
<th>Shoe width</th>
<th>Operating weight</th>
<th>Ground pressure</th>
<th>Overall width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple grouser</td>
<td>500 mm, 20&quot;</td>
<td>13160 kg, 29,020 lb</td>
<td>39.2 kPa, 5.7 psi</td>
<td>2490 mm, 8' 2&quot;</td>
</tr>
<tr>
<td></td>
<td>Std. 600 mm, 24&quot;</td>
<td>13370 kg, 29,480 lb</td>
<td>33.3 kPa, 4.8 psi</td>
<td>2590 mm, 8' 6&quot;</td>
</tr>
<tr>
<td></td>
<td>700 mm, 28&quot;</td>
<td>13580 kg, 29,940 lb</td>
<td>29.4 kPa, 4.3 psi</td>
<td>2690 mm, 8' 10&quot;</td>
</tr>
<tr>
<td></td>
<td>750 mm, 30&quot;</td>
<td>13690 kg, 30,190 lb</td>
<td>27.5 kPa, 4.0 psi</td>
<td>2740 mm, 9' 0&quot;</td>
</tr>
</tbody>
</table>

• **LCM** undercarriage with Std. 4.6 m, 15' 1" boom, Std. 3.0 m, 9' 10" arm, 394 kg, 870 lb bucket and 1750 kg, 3,860 lb counterweight.

<table>
<thead>
<tr>
<th>Description</th>
<th>Shoe width</th>
<th>Operating weight</th>
<th>Ground pressure</th>
<th>Overall width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triple grouser</td>
<td>Std. 600 mm, 24&quot;</td>
<td>14460 kg, 31,880 lb</td>
<td>35.9 kPa, 5.2 psi</td>
<td>2590 mm, 8' 6&quot;</td>
</tr>
<tr>
<td></td>
<td>700 mm, 28&quot;</td>
<td>14670 kg, 32,350 lb</td>
<td>30.9 kPa, 4.5 psi</td>
<td>2690 mm, 8' 10&quot;</td>
</tr>
<tr>
<td></td>
<td>800 mm, 32&quot;</td>
<td>15060 kg, 33,210 lb</td>
<td>27.9 kPa, 4.0 psi</td>
<td>2790 mm, 9' 2&quot;</td>
</tr>
<tr>
<td></td>
<td>900 mm, 36&quot;</td>
<td>15280 kg, 33,690 lb</td>
<td>24.9 kPa, 3.6 psi</td>
<td>2890 mm, 9' 6&quot;</td>
</tr>
</tbody>
</table>

DIMENSIONS

• **Boom**

![](boom_diagram.png)

<table>
<thead>
<tr>
<th>Description</th>
<th>Std. 4.6 m, 15' 1&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>4770 mm, 15' 8&quot;</td>
</tr>
<tr>
<td>Height</td>
<td>1295 mm, 4' 3&quot;</td>
</tr>
<tr>
<td>Width</td>
<td>545 mm, 1' 9&quot;</td>
</tr>
<tr>
<td>Weight *</td>
<td>970 kg, 2,140 lb</td>
</tr>
</tbody>
</table>

* Includes cylinder, piping and pin

• **Arm**

![](arm_diagram.png)

<table>
<thead>
<tr>
<th>Description</th>
<th>2.1 m, 6' 11&quot;</th>
<th>Std.(LC) 2.5 m, 8' 2&quot;</th>
<th>Std.(LCM) 3.0 m, 9' 10&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>2800 mm, 9' 2&quot;</td>
<td>3190 mm, 10' 6&quot;</td>
<td>3690 mm, 12' 1&quot;</td>
</tr>
<tr>
<td>Height</td>
<td>760 mm, 2' 6&quot;</td>
<td>760 mm, 2' 6&quot;</td>
<td>760 mm, 2' 6&quot;</td>
</tr>
<tr>
<td>Width</td>
<td>300 mm, 1' 0&quot;</td>
<td>300 mm, 1' 0&quot;</td>
<td>335 mm, 1' 1&quot;</td>
</tr>
<tr>
<td>Weight *</td>
<td>525 kg, 1,160 lb</td>
<td>575 kg, 1,270 lb</td>
<td>685 kg, 1,510 lb</td>
</tr>
</tbody>
</table>

* Includes cylinder, linkage and pins
## DIMENSIONS

<table>
<thead>
<tr>
<th>Boom</th>
<th>unit</th>
<th>LC: Std. 4.6 m, 15' 1&quot;</th>
<th>LCM: Std. 4.6 m, 15' 1&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Overall width of upper structure</strong></td>
<td>mm, ft-in</td>
<td>2450, 8' 0&quot;</td>
<td>2450, 8' 0&quot;</td>
</tr>
<tr>
<td><strong>B. Overall width</strong></td>
<td>mm, ft-in</td>
<td>2590, 8' 6&quot;</td>
<td>2590, 8' 6&quot;</td>
</tr>
<tr>
<td><strong>C. Overall height of cab</strong></td>
<td>mm, ft-in</td>
<td>2770, 9' 1&quot;</td>
<td>2770, 9' 1&quot;</td>
</tr>
<tr>
<td><strong>D. Tail swing radius</strong></td>
<td>mm, ft-in</td>
<td>2200, 7' 3&quot;</td>
<td>2200, 7' 3&quot;</td>
</tr>
<tr>
<td><strong>E. Overall height of engine hood</strong></td>
<td>mm, ft-in</td>
<td>2180, 7' 2&quot;</td>
<td>2180, 7' 2&quot;</td>
</tr>
<tr>
<td><strong>F. Counterweight clearance</strong></td>
<td>mm, ft-in</td>
<td>900, 2' 11&quot;</td>
<td>900, 2' 11&quot;</td>
</tr>
<tr>
<td><strong>G. Tumbler length</strong></td>
<td>mm, ft-in</td>
<td>3000, 9' 10&quot;</td>
<td>3000, 9' 10&quot;</td>
</tr>
<tr>
<td><strong>H. Track length</strong></td>
<td>mm, ft-in</td>
<td>3740, 12' 3&quot;</td>
<td>3740, 12' 3&quot;</td>
</tr>
<tr>
<td><strong>I. Track gauge</strong></td>
<td>mm, in</td>
<td>1990, 6' 6&quot;</td>
<td>1990, 6' 6&quot;</td>
</tr>
<tr>
<td><strong>J. Shoe width-Std.</strong></td>
<td>mm, in</td>
<td>600, 24&quot;</td>
<td>600, 24&quot;</td>
</tr>
<tr>
<td><strong>K. Min. ground clearance</strong></td>
<td>mm, ft-in</td>
<td>430, 1' 5&quot;</td>
<td>430, 1' 5&quot;</td>
</tr>
<tr>
<td><strong>L. Overall length</strong></td>
<td>mm, ft-in</td>
<td>7750, 25' 5&quot;</td>
<td>7750, 25' 5&quot;</td>
</tr>
<tr>
<td><strong>M. Overall height of boom</strong></td>
<td>mm, ft-in</td>
<td>2610, 8' 7&quot;</td>
<td>2780, 9' 1&quot;</td>
</tr>
</tbody>
</table>

* Withou shoe grouser
BUCKET & ARM COMBINATION

Note: Bucket size based on SAE-J296, heaped material with a 1:1 angle of repose.

• LC: Max. permitted sizes for pin on buckets:
  Counterweight: 1750 kg, **3,860 lb**

<table>
<thead>
<tr>
<th>Description</th>
<th>unit</th>
<th>2.1m, 6’ 11” Arm</th>
<th>Std. 2.5 m, 8’ 2” Arm</th>
<th>3.0m, 9’ 10” Arm</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP bucket 1.5 t/m³, 2,530 lb/yd³</td>
<td>l, yd³</td>
<td>900, 1.18</td>
<td>825, 1.08</td>
<td>725, 0.95</td>
</tr>
<tr>
<td>GP bucket 1.8 t/m³, 3,030 lb/yd³</td>
<td>l, yd³</td>
<td>775, 1.01</td>
<td>725, 0.95</td>
<td>625, 0.82</td>
</tr>
</tbody>
</table>

• LCM: Max. permitted sizes for pin on buckets:
  Counterweight: 1750 kg, **3,860 lb**

<table>
<thead>
<tr>
<th>Description</th>
<th>unit</th>
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<th>3.0m, 9’ 10” Arm</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP bucket 1.5 t/m³, 2,530 lb/yd³</td>
<td>l, yd³</td>
<td>950, 1.24</td>
<td>875, 1.14</td>
<td>750, 0.98</td>
</tr>
<tr>
<td>GP bucket 1.8 t/m³, 3,030 lb/yd³</td>
<td>l, yd³</td>
<td>825, 1.08</td>
<td>750, 0.98</td>
<td>675, 0.88</td>
</tr>
</tbody>
</table>

• LC: Max. permitted sizes for hook on buckets:
  Counterweight: 1750 kg, **3,860 lb**

<table>
<thead>
<tr>
<th>Description</th>
<th>unit</th>
<th>2.1m, 6’ 11” Arm</th>
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<td>l, yd³</td>
<td>850, 1.11</td>
<td>775, 1.01</td>
<td>675, 0.88</td>
</tr>
<tr>
<td>GP bucket 1.8 t/m³, 3,030 lb/yd³</td>
<td>l, yd³</td>
<td>750, 0.98</td>
<td>675, 0.88</td>
<td>600, 0.78</td>
</tr>
</tbody>
</table>

• LCM: Max. permitted sizes for hook on buckets:
  Counterweight: 1750 kg, **3,860 lb**

<table>
<thead>
<tr>
<th>Description</th>
<th>unit</th>
<th>2.1m, 6’ 11” Arm</th>
<th>Std. 2.5 m, 8’ 2” Arm</th>
<th>3.0m, 9’ 10” Arm</th>
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<tbody>
<tr>
<td>GP bucket 1.5 t/m³, 2,530 lb/yd³</td>
<td>l, yd³</td>
<td>900, 1.18</td>
<td>825, 1.08</td>
<td>725, 0.95</td>
</tr>
<tr>
<td>GP bucket 1.8 t/m³, 3,030 lb/yd³</td>
<td>l, yd³</td>
<td>800, 1.05</td>
<td>725, 0.95</td>
<td>625, 0.82</td>
</tr>
</tbody>
</table>
### WORKING RANGES

<table>
<thead>
<tr>
<th>Arm</th>
<th>Unit</th>
<th>2.1 m, 6' 11&quot;</th>
<th>Std. 2.5 m, 8' 2&quot;</th>
<th>3.0 m, 9' 10&quot;</th>
<th>2.1 m, 6' 11&quot;</th>
<th>2.5 m, 8' 2&quot;</th>
<th>Std. 3.0 m, 9' 10&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Max. digging reach</td>
<td>mm, ft-in</td>
<td>7960, 26' 1&quot;</td>
<td>8330, 27' 4&quot;</td>
<td>8820, 28' 11&quot;</td>
<td>7960, 26' 1&quot;</td>
<td>8330, 27' 4&quot;</td>
<td>8820, 28' 11&quot;</td>
</tr>
<tr>
<td>B. Max. digging reach on ground</td>
<td>mm, ft-in</td>
<td>7810, 25' 7&quot;</td>
<td>8190, 26' 10&quot;</td>
<td>8660, 28' 6&quot;</td>
<td>7780, 25' 6&quot;</td>
<td>8160, 26' 9&quot;</td>
<td>8660, 28' 5&quot;</td>
</tr>
<tr>
<td>C. Max. digging depth</td>
<td>mm, ft-in</td>
<td>5130, 16' 10&quot;</td>
<td>5530, 18' 2&quot;</td>
<td>6030, 19' 9&quot;</td>
<td>4980, 16' 4&quot;</td>
<td>5380, 17' 8&quot;</td>
<td>5880, 19' 3&quot;</td>
</tr>
<tr>
<td>D. Max. digging depth (8' level)</td>
<td>mm, ft-in</td>
<td>4870, 16' 0&quot;</td>
<td>5310, 17' 5&quot;</td>
<td>5850, 19' 2&quot;</td>
<td>4710, 15' 5&quot;</td>
<td>5160, 16' 11&quot;</td>
<td>5690, 18' 8&quot;</td>
</tr>
<tr>
<td>E. Max. vertical wall digging depth</td>
<td>mm, ft-in</td>
<td>4580, 15' 0&quot;</td>
<td>5060, 16' 7&quot;</td>
<td>5500, 18' 1&quot;</td>
<td>4430, 14' 6&quot;</td>
<td>4900, 16' 1&quot;</td>
<td>5330, 17' 6&quot;</td>
</tr>
<tr>
<td>F. Max. cutting height</td>
<td>mm, ft-in</td>
<td>8180, 26' 10&quot;</td>
<td>8420, 27' 7&quot;</td>
<td>8770, 28' 9&quot;</td>
<td>8340, 27' 4&quot;</td>
<td>8570, 28' 1&quot;</td>
<td>8930, 29' 4&quot;</td>
</tr>
<tr>
<td>G. Max. dumping height</td>
<td>mm, ft-in</td>
<td>5740, 18' 10&quot;</td>
<td>5980, 19' 7&quot;</td>
<td>6320, 20' 9&quot;</td>
<td>5900, 19' 4&quot;</td>
<td>6130, 20' 1&quot;</td>
<td>6470, 21' 3&quot;</td>
</tr>
<tr>
<td>H. Min. front swing radius</td>
<td>mm, ft-in</td>
<td>2610, 8' 7&quot;</td>
<td>2670, 8' 9&quot;</td>
<td>2830, 9' 3&quot;</td>
<td>2610, 8' 7&quot;</td>
<td>2670, 8' 9&quot;</td>
<td>2830, 9' 3&quot;</td>
</tr>
</tbody>
</table>

**Digging forces with pin on bucket:**

<table>
<thead>
<tr>
<th>Bucket tip radius</th>
<th>Unit</th>
<th>2.1 m, 6' 11&quot;</th>
<th>Std. 2.5 m, 8' 2&quot;</th>
<th>3.0 m, 9' 10&quot;</th>
<th>2.1 m, 6' 11&quot;</th>
<th>2.5 m, 8' 2&quot;</th>
<th>Std. 3.0 m, 9' 10&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>mm, in</td>
<td>1250, 49&quot;</td>
<td>1250, 49&quot;</td>
<td>1250, 49&quot;</td>
<td>1250, 49&quot;</td>
<td>1250, 49&quot;</td>
<td>1250, 49&quot;</td>
</tr>
<tr>
<td>Breakout force-bucket (Normal / Power boost)</td>
<td>SAE kN</td>
<td>78.7 / 86.1</td>
<td>78.7 / 86.1</td>
<td>78.7 / 86.1</td>
<td>78.7 / 86.1</td>
<td>78.7 / 86.1</td>
<td>78.7 / 86.1</td>
</tr>
<tr>
<td></td>
<td>lb</td>
<td>17,710 / 19,360</td>
<td>17,710 / 19,360</td>
<td>17,710 / 19,360</td>
<td>17,710 / 19,360</td>
<td>17,710 / 19,360</td>
<td>17,710 / 19,360</td>
</tr>
<tr>
<td>Tearout force-arm (Normal / Power boost)</td>
<td>SAE kN</td>
<td>67.1 / 73.3</td>
<td>59.8 / 65.4</td>
<td>53.2 / 58.2</td>
<td>67.1 / 73.3</td>
<td>59.8 / 65.4</td>
<td>53.2 / 58.2</td>
</tr>
<tr>
<td></td>
<td>lb</td>
<td>15,080 / 16,490</td>
<td>13,450 / 14,710</td>
<td>11,970 / 13,100</td>
<td>15,080 / 16,490</td>
<td>13,450 / 14,710</td>
<td>11,970 / 13,100</td>
</tr>
<tr>
<td>Rotation angle, bucket</td>
<td>°</td>
<td>179°</td>
<td>179°</td>
<td>179°</td>
<td>179°</td>
<td>179°</td>
<td>179°</td>
</tr>
</tbody>
</table>

* Std. 4.6 m, 15' 1" boom with pin on bucket
LIFTING CAPACITY (At the arm end without bucket)

Note: For lift capacity including bucket, simply subtract actual weight of the pin on bucket or the bucket with quick coupler from the following values.

<p>| EC140LC (Std. shoe 600 mm, 24&quot;, Counterweight 1750 kg, 3,860 lb) |
|---|---|---|---|---|---|---|
| Max. reach | 3 m, 10' | 4.5 m, 15' | 6 m, 20' | Max. reach |
| Across under | Lifting hook | Max. | Lifting hook | Max. | Lifting hook | Max. |</p>
<table>
<thead>
<tr>
<th>carriage</th>
<th>level</th>
<th>m/ft</th>
<th>ground</th>
<th>m/ft</th>
<th>ground</th>
<th>m/ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boom</td>
<td>4.6 m</td>
<td>15' 1&quot;</td>
<td>+ Arm</td>
<td>2.1 m 6&quot; 11&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 20'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5 15'</td>
<td>*5.2</td>
<td>*13,300</td>
<td>*6.2</td>
<td>*13,300</td>
<td>3.4</td>
<td>7,300</td>
</tr>
<tr>
<td>3 10'</td>
<td>*5.2</td>
<td>*13,300</td>
<td>*5.2</td>
<td>*12,170</td>
<td>3.0</td>
<td>6,570</td>
</tr>
<tr>
<td>1.5 5'</td>
<td>*5.2</td>
<td>*11,860</td>
<td>*5.2</td>
<td>*12,170</td>
<td>3.0</td>
<td>6,570</td>
</tr>
<tr>
<td>0 0'</td>
<td>*5.2</td>
<td>*11,860</td>
<td>*5.2</td>
<td>*12,170</td>
<td>3.0</td>
<td>6,570</td>
</tr>
<tr>
<td>-1.5 -5'</td>
<td>5.5</td>
<td>11,900</td>
<td>9.5</td>
<td>*20,580</td>
<td>3.0</td>
<td>6,500</td>
</tr>
<tr>
<td>-3 -10'</td>
<td>5.7</td>
<td>12,170</td>
<td>8.3</td>
<td>*17,840</td>
<td>3.1</td>
<td>6,660</td>
</tr>
<tr>
<td>-4.5 -15'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boom</td>
<td>4.6 m</td>
<td>15' 1&quot;</td>
<td>+ Arm</td>
<td>2.5 m 8' 2&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 20'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5 15'</td>
<td>*5.3</td>
<td>*11,390</td>
<td>*5.3</td>
<td>*11,390</td>
<td>3.4</td>
<td>7,370</td>
</tr>
<tr>
<td>3 10'</td>
<td>*5.3</td>
<td>*11,390</td>
<td>*5.3</td>
<td>*11,390</td>
<td>3.4</td>
<td>7,370</td>
</tr>
<tr>
<td>1.5 5'</td>
<td>5.8</td>
<td>12,410</td>
<td>6.3</td>
<td>*15,590</td>
<td>3.2</td>
<td>6,880</td>
</tr>
<tr>
<td>0 0'</td>
<td>5.5</td>
<td>11,800</td>
<td>5.8</td>
<td>*13,460</td>
<td>3.0</td>
<td>6,540</td>
</tr>
<tr>
<td>-1.5 -5'</td>
<td>5.5</td>
<td>11,740</td>
<td>9.3</td>
<td>*20,920</td>
<td>3.0</td>
<td>6,410</td>
</tr>
<tr>
<td>-3 -10'</td>
<td>5.6</td>
<td>11,950</td>
<td>8.7</td>
<td>*18,860</td>
<td>3.0</td>
<td>6,500</td>
</tr>
<tr>
<td>-4.5 -15'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boom</td>
<td>4.6 m</td>
<td>15' 1&quot;</td>
<td>+ Arm</td>
<td>3.0 m 9' 10&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 20'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5 15'</td>
<td>*3.4</td>
<td>*7,420</td>
<td>*3.4</td>
<td>*7,420</td>
<td>2.3</td>
<td>4,880</td>
</tr>
<tr>
<td>3 10'</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5 5'</td>
<td>5.9</td>
<td>12,600</td>
<td>7.3</td>
<td>*15,680</td>
<td>3.2</td>
<td>6,870</td>
</tr>
<tr>
<td>0 0'</td>
<td>5.4</td>
<td>11,680</td>
<td>6.2</td>
<td>*14,520</td>
<td>3.0</td>
<td>6,430</td>
</tr>
<tr>
<td>-1.5 -5'</td>
<td>5.3</td>
<td>11,450</td>
<td>8.4</td>
<td>*19,280</td>
<td>2.9</td>
<td>6,230</td>
</tr>
<tr>
<td>-3 -10'</td>
<td>5.4</td>
<td>11,570</td>
<td>9.1</td>
<td>*19,650</td>
<td>2.9</td>
<td>6,250</td>
</tr>
<tr>
<td>-4.5 -15'</td>
<td>5.6</td>
<td>12,050</td>
<td>7.2</td>
<td>*15,350</td>
<td>2.3</td>
<td>5,060</td>
</tr>
</tbody>
</table>

Notes: 1. Machine in "Fine Mode - F" (Power Boost), for lift capacities.
2. The above loads are in compliance with SAE and ISO Hydraulic Excavator Lift Capacity Standards.
3. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.
4. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.
5. Contains metric and U.S. measurement charts.
**LIFTING CAPACITY (At the arm end without bucket)**

Note: For lift capacity including bucket, simply subtract actual weight of the pin on bucket or the bucket with quick coupler from the following values.

EC140LCM (Std. shoe 600 mm, 24”, Counterweight 1750 kg, 3,860 lb)

<table>
<thead>
<tr>
<th>Across upper carriage</th>
<th>3 m, 10'</th>
<th>4.5 m, 15'</th>
<th>6 m, 20'</th>
<th>Max. reach</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 20'</td>
<td>2.8</td>
<td>3.3</td>
<td>3.3</td>
<td>2.7</td>
</tr>
<tr>
<td>4.5 15'</td>
<td>2.8</td>
<td>3.3</td>
<td>3.3</td>
<td>2.7</td>
</tr>
<tr>
<td>3 10'</td>
<td>2.8</td>
<td>3.3</td>
<td>3.3</td>
<td>2.7</td>
</tr>
<tr>
<td>1 5'</td>
<td>2.8</td>
<td>3.3</td>
<td>3.3</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Note: 1. Machine in “Fine Mode - F” (Power Boost), for lift capacities.
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5. Contains metric and U.S. measurement charts.
## STANDARD EQUIPMENT

### Engine
- Low-emission engine with air heater, complying with EPA (Environment Protection Association, USA) emission standards
- 2-stage air filter with indicator
- Pre-cleaner
- Electric engine shut-off
- Fuel filter and water separator
- Alternator, 50 AMP

### Electronic control system
- Advanced control system (ACS)
- Integrated mode selection system
- Self-diagnostic system
- Machine status indication
- Engine speed sensing power control
- Automatic idling system
- One-touch power boost
- Automatic engine warm-up
- Safety stop/start function
- Adjustable monitor
- Master disconnect switch
- Engine restart prevention circuit
- Travel Alarm

### Hydraulic system
- Automatic halogen lights:
  - Frame mounted 2
  - Boom mounted 2
- Batteries, 2 x 12V/150Ah
- Start motor, 24V/3.7kW
- Pump flow control for hammer & shear

### Cab and interior
- Air-conditioner
- Heater
- Hydraulic dampening cab mounts
- Adjustable operator seat and control consoles
- Flexible antenna
- Cab, all-weather sound suppressed, includes:
  - Ashtray
  - Fabric seat with heater
  - Cigar lighter
  - Clear tinted roof hatch
  - Door locks
  - Floor mat
  - Horn
- Large storage area
- Pull-up type front window
- Removable lower windshield
- Seat belt
- Safety glass
- Sliding rear window
- Sun shield, front
- Windshield wiper with intermittent feature
- Master ignition key
- Stereo cassette radio (AM/FM)

### Undercarriage
- Hydraulic track adjusters
- Greased and sealed track chain
- Track guides

### Track shoes
- LC: Std. track shoes 600 mm, 24” with triple grousers
- LCM: Std. track shoes 600 mm, 24” with triple grousers

### Attachment
- Std. boom: 4.6 m, 15’ 1"
- Std. arm (LC): 2.5 m, 8’ 2"
- Std. arm (LCM): 3.0 m, 9’ 10”

### Optional Equipment

### Engine
- Alternator, 70 AMP
- Block and oil pan heater, 120V
- Fuel warmer
- Tropical kit
- Fuel filler pump: 50 lpm (13.2 gpm), with automatic shut-off

### Electronic control system
- Extra work lights (4):
  - Cab mounted-3, (front 2, rear 1)
  - Counterweight mounted-1, Rotating warning beacon

### Hydraulic system
- Hydraulic piping:
  - Hammer & shear: 2 pump flow
  - Extra piping for slope & rotator
  - Slope & rotator
  - Grapple
  - Oil leak line
- Volvo hydraulic quick coupler-6 size
- Hydraulic oil, ISO VG 32
- Hydraulic oil, ISO VG 68

### Superstructure
- Undercover (heavy duty), 4.5 mm, (.18”)

### Cab and interior
- Fabric seat
- Fabric seat, with heater and air suspension
- Control joystick, with 5 switches ea.
- Falling object guard (FOG)
- Cab mounted falling object protective structures (FOPS)
- Rain shield, front
- Safety screen for front window
- Vandalism kit

### Undercarriage
- Undercover (heavy duty), 10 mm, (.39”) Skid rails

### Track shoes
- LC: 500 / 700 / 750 mm
  - 20” / 28” / 30” track shoes with triple grousers
- LCM: 700 / 800 / 900 mm
  - 28” / 32” / 36” track shoes with triple grousers

### Attachment
- Arms: 2.1 m / 2.5 / 3.0 m
  - 6’ 11” / 8’ 2” / 9’ 10”

### Service
- Tool kit

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*Specifications may vary by the region without notice.
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*Materials and specifications are subject to change without notice.

Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

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