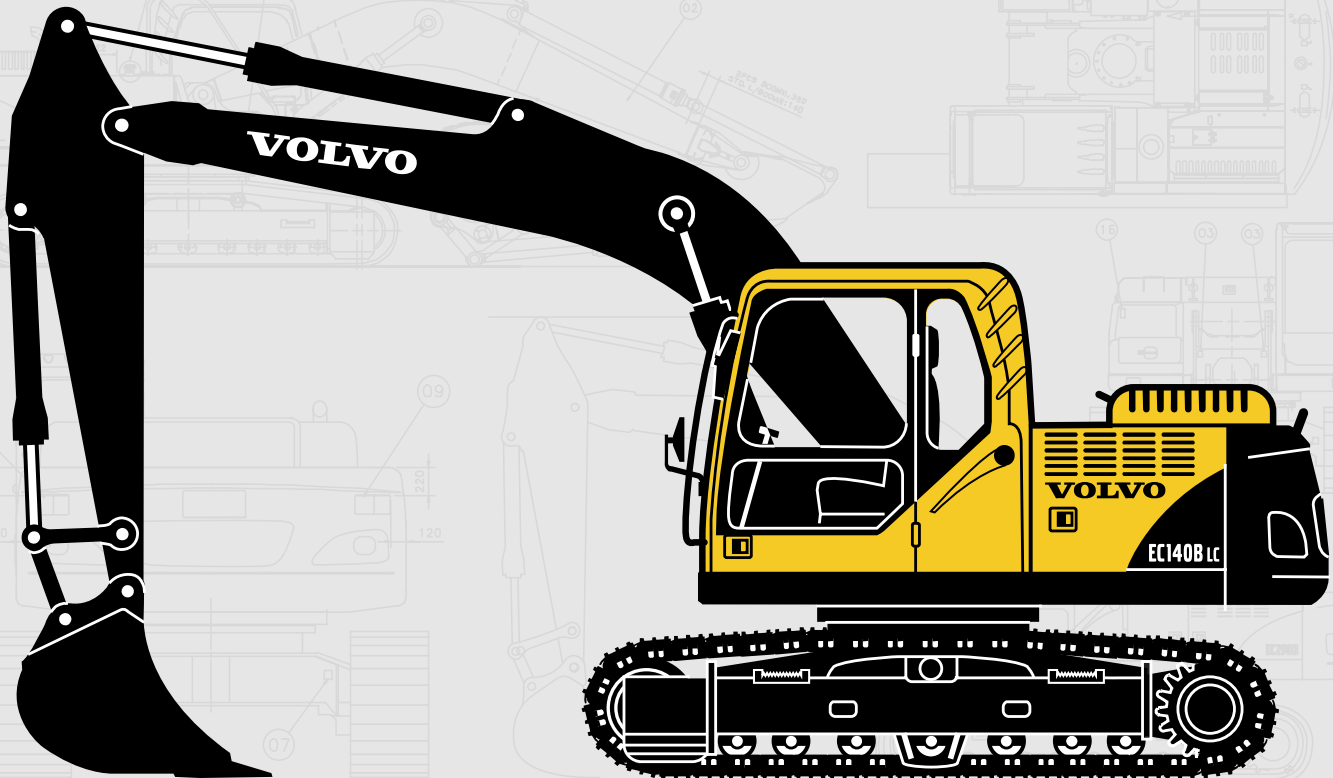


# VOLVO EXCAVATOR

## EC140B LC EC140B LCM

### MONOBLOCK/2-PIECE BOOM



- Engine power, gross: 73 kW (98 hp)
- Operating weight:  
LC: 13.4 ~ 15.2 t  
LCM: 14.6 ~ 15.6 t
- Buckets (SAE):  
600 ~ 1,075 l
- Turbocharged VOLVO diesel engine with direct injection
- Contronics, advanced mode selection system and electronically controlled system
- 2 variable displacement axial piston pumps. Independent and simultaneous movements of the digging equipment are controlled by "Automatic Sensing Work Mode".
- Cab
  - Ergonomic environment
  - Low sound level
  - Filtered air
  - Hydraulic dampening mounts
- Strong digging equipment, 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 transportation
- Auxiliary hydraulic valve as standard
- Prepared for a number of optional items

# VOLVO



## ENGINE

The engine is a turbocharged, 4-stroke diesel engine with water cooling, direct injection. The engine has been developed especially for excavator use, providing good fuel economy, low noise levels and a long service life.

**Air Filter:** 2-stage

**Automatic Idling System:** Reduces engine speed to idle when the levers and pedals are not activated resulting in less fuel consumption and low cab noise level.

### Low-Emission Engine:

|                              |                       |
|------------------------------|-----------------------|
| Make                         | VOLVO                 |
| Model                        | D4D                   |
| Power output at              | 35 r/s (2,100 rpm)    |
| Net (ISO 9249/<br>SAE J1349) | 69 kW (94 ps / 93 hp) |
| Gross (SAE J1995)            | 73 kW (99 ps / 98 hp) |
| Max. torque                  | 390 N·m at 1,500 rpm  |
| No. of cylinders             | 4                     |
| Displacement                 | 4 l                   |
| Bore                         | 101 mm                |
| Stroke                       | 126 mm                |



## ELECTRICAL SYSTEM

Well-protected electrical system with high capacity. Waterproof double-lock harness plugs are used to secure corrosion free connections. The main relays and solenoid valves are shielded to prevent damage. A master switch is standard.

**Contronics**, provides advanced monitoring of machine function and important diagnostic information.

|                  |             |
|------------------|-------------|
| Voltage          | 24 V        |
| Batteries        | 2 x 12 V    |
| Battery capacity | 100 Ah      |
| Alternator       | 28 V / 80 A |



## UNDERCARRIAGE

The undercarriage has a robust X-shaped frame, greased and sealed track chains are standard.

### LC

|                             |                          |
|-----------------------------|--------------------------|
| No. of track pads           | 2 x 46                   |
| Link pitch                  | 171.45 mm                |
| Shoe width, triple grouser  | 500 / 600 / 700 / 750 mm |
| No. of bottom track rollers | 2 x 7                    |
| No. of top rollers          | 2 x 1                    |

### LCM

|                             |                          |
|-----------------------------|--------------------------|
| No. of track pads           | 2 x 42                   |
| Link pitch                  | 190 mm                   |
| Shoe width, triple grouser  | 600 / 700 / 800 / 900 mm |
| No. of bottom track rollers | 2 x 6                    |
| No. of top rollers          | 2 x 2                    |



## DRIVE

Each track is powered by an automatic two-speed shift travel motor. The track brakes are multi-disc, spring-applied and hydraulic released. The travel motor, brake and planetary gears are well protected in the track frame.

### LC

|                      |                      |
|----------------------|----------------------|
| Max. tractive effort | 109.8 kN (11,200 kg) |
| Max. travel speed    | 3.2 / 5.5 km/h       |
| Gradeability         | 35° (70%)            |

### LCM

|                      |                      |
|----------------------|----------------------|
| Max. tractive effort | 140.2 kN (14,300 kg) |
| Max. travel speed    | 2.5 / 4.3 km/h       |
| Gradeability         | 35° (70%)            |



## SWING SYSTEM

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

|                  |          |
|------------------|----------|
| Max. swing speed | 11.0 rpm |
|------------------|----------|



## SERVICE REFILL CAPACITIES

|                         |           |
|-------------------------|-----------|
| Fuel tank               | 260 l     |
| Hydraulic system, total | 205 l     |
| Hydraulic tank          | 100 l     |
| Engine oil              | 15.5 l    |
| Engine coolant          | 20.3 l    |
| Swing reduction unit    | 3.8 l     |
| Travel reduction unit   |           |
| LC                      | 2 x 3.5 l |
| LCM                     | 2 x 5.8 l |



## 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, arm and swing priority along with boom and arm regeneration are provides optimum performance.

The following important functions are included in the system:

**Summation system:** Combining the flow of both hydraulic pumps to ensure quick cycle times and high productivity.

**Boom priority:** Gives priority to the boom operation for faster raising when loading or deep excavation.

**Arm priority:** Gives priority to the arm operation for faster cycle times in leveling and for increased bucket filling when digging.

**Swing priority:** Supplies priority to the swing operation for faster swing simultaneous operations.

**Regeneration system:** Prevents cavitation and provides flow to other movements during simultaneous operations for maximum productivity.

**Power boost:** All digging and lifting forces are increased.

**Holding valves:** Boom and arm holding valves prevent the digging equipment from creeping.

**Power Max:** All function speeds are increased.

### Main pump:

Type ..... 2 x variable displacement axial piston pumps  
Maximum flow ... 2 x 118 l/min

### Pilot pump:

Type ..... Gear pump  
Maximum flow ... 1 x 21 l/min

### Hydraulic motors:

Travel ..... Variable displacement axial piston motors  
Swing ..... Fixed displacement axial piston motor with mechanical brake

### Relief valve setting:

Implement ..... 32.4 / 34.3 Mpa (330 / 350 kg/cm<sup>2</sup>)  
Travel circuit ..... 34.3 Mpa (350 kg/cm<sup>2</sup>)  
Swing circuit ..... 24.5 Mpa (250 kg/cm<sup>2</sup>)  
Pilot circuit ..... 3.9 Mpa (40 kg/cm<sup>2</sup>)

### Hydraulic cylinders:

Monoblock boom ..... 2  
Bore x Stroke ..... Ø105 x 980 mm  
1st boom of 2-piece boom ..... 2  
Bore x Stroke ..... Ø110 x 980 mm  
2nd boom of 2-piece boom ..... 1  
Bore x Stroke ..... Ø160 x 765 mm  
Arm ..... 1  
Bore x Stroke ..... Ø120 x 1,045 mm  
Bucket ..... 1  
Bore x Stroke ..... Ø100 x 865 mm



## CAB

The operator's cab has easy access via a wide door opening. The cab is supported on hydraulic dampening mounts to reduce shock and vibration levels. These along with a sound absorbing lining provide low noise levels. The cab has excellent all-round visibility. The front windshield can easily slide up into the ceiling, and the lower front glass can be removed and stored. The glass is stored in the door.

### Integrated air conditioning and heating system:

The pressurized and filtered cab air is supplied by automatic controlled fan. The air is distributed via 13 vents.

**Ergonomic operator's seat:** The adjustable seat and joystick consoles move independently to accommodate the operator. The seat has nine different adjustments and a seat belt to meet any operator's comfort and safety.

### Sound Level:

Sound level in cab  
according to ISO 6396 ..... LpA 72 dB(A)  
External sound level  
according to ISO 6395 ..... LwA 100 dB(A)  
(Directive 2000/14/EC)



## GROUND PRESSURE

- LC undercarriage with 4.6 m monoblock boom, 2.5 m arm, 450 l (400 kg) bucket and 2,100 kg counterweight.

| Description    | Shoe width | Operating weight | Ground pressure                     | Overall width |
|----------------|------------|------------------|-------------------------------------|---------------|
| Triple grouser | 500 mm     | 13,390 kg        | 40.3 kPa (0.41 kg/cm <sup>2</sup> ) | 2,490 mm      |
|                | 600 mm     | 13,600 kg        | 34.1 kPa (0.35 kg/cm <sup>2</sup> ) | 2,590 mm      |
|                | 700 mm     | 13,810 kg        | 29.7 kPa (0.30 kg/cm <sup>2</sup> ) | 2,690 mm      |
|                | 750 mm     | 13,920 kg        | 28.0 kPa (0.29 kg/cm <sup>2</sup> ) | 2,740 mm      |

- LC undercarriage with 4.6 m monoblock boom, 2.5 m arm, 450 l (400 kg) bucket and 2,450 kg counterweight.

| Description    | Shoe width | Operating weight | Ground pressure                     | Overall width |
|----------------|------------|------------------|-------------------------------------|---------------|
| Triple grouser | 500 mm     | 13,740 kg        | 41.1 kPa (0.42 kg/cm <sup>2</sup> ) | 2,490 mm      |
|                | 600 mm     | 13,950 kg        | 35.0 kPa (0.36 kg/cm <sup>2</sup> ) | 2,590 mm      |
|                | 700 mm     | 14,160 kg        | 30.5 kPa (0.31 kg/cm <sup>2</sup> ) | 2,690 mm      |
|                | 750 mm     | 14,270 kg        | 28.7 kPa (0.29 kg/cm <sup>2</sup> ) | 2,740 mm      |

- LC undercarriage dozer blade with 4.6 m monoblock boom, 2.5 m arm, 450 l (400 kg) bucket and 2,100 kg counterweight.

| Description    | Shoe width | Operating weight | Ground pressure                     | Overall width |
|----------------|------------|------------------|-------------------------------------|---------------|
| Triple grouser | 500 mm     | 14,290 kg        | 43.0 kPa (0.44 kg/cm <sup>2</sup> ) | 2,490 mm      |
|                | 600 mm     | 14,500 kg        | 36.4 kPa (0.37 kg/cm <sup>2</sup> ) | 2,590 mm      |
|                | 700 mm     | 14,710 kg        | 31.6 kPa (0.32 kg/cm <sup>2</sup> ) | 2,690 mm      |
|                | 750 mm     | 14,820 kg        | 29.8 kPa (0.30 kg/cm <sup>2</sup> ) | 2,740 mm      |

- LC undercarriage dozer blade with 4.6 m monoblock boom, 2.5 m arm, 450 l (400 kg) bucket and 2,450 kg counterweight.

| Description    | Shoe width | Operating weight | Ground pressure                     | Overall width |
|----------------|------------|------------------|-------------------------------------|---------------|
| Triple grouser | 500 mm     | 14,640 kg        | 44.1 kPa (0.45 kg/cm <sup>2</sup> ) | 2,490 mm      |
|                | 600 mm     | 14,850 kg        | 37.3 kPa (0.38 kg/cm <sup>2</sup> ) | 2,590 mm      |
|                | 700 mm     | 15,060 kg        | 32.4 kPa (0.33 kg/cm <sup>2</sup> ) | 2,690 mm      |
|                | 750 mm     | 15,170 kg        | 30.5 kPa (0.31 kg/cm <sup>2</sup> ) | 2,740 mm      |

- LCM undercarriage with 4.6 m monoblock boom, 2.5 m arm, 450 l (400 kg) bucket and 2,100 kg counterweight.

| Description    | Shoe width | Operating weight | Ground pressure                     | Overall width |
|----------------|------------|------------------|-------------------------------------|---------------|
| Triple grouser | 600 mm     | 14,590 kg        | 36.3 kPa (0.37 kg/cm <sup>2</sup> ) | 2,590 mm      |
|                | 700 mm     | 14,800 kg        | 31.6 kPa (0.32 kg/cm <sup>2</sup> ) | 2,690 mm      |
|                | 800 mm     | 15,010 kg        | 28.0 kPa (0.29 kg/cm <sup>2</sup> ) | 2,790 mm      |
|                | 900 mm     | 15,220 kg        | 25.3 kPa (0.26 kg/cm <sup>2</sup> ) | 2,890 mm      |

- LCM undercarriage with 4.6 m monoblock boom, 2.5 m arm, 450 l (400 kg) bucket and 2,450 kg counterweight.

| Description    | Shoe width | Operating weight | Ground pressure                     | Overall width |
|----------------|------------|------------------|-------------------------------------|---------------|
| Triple grouser | 600 mm     | 14,940 kg        | 37.2 kPa (0.38 kg/cm <sup>2</sup> ) | 2,590 mm      |
|                | 700 mm     | 15,150 kg        | 32.3 kPa (0.33 kg/cm <sup>2</sup> ) | 2,690 mm      |
|                | 800 mm     | 15,360 kg        | 28.7 kPa (0.29 kg/cm <sup>2</sup> ) | 2,790 mm      |
|                | 900 mm     | 15,570 kg        | 25.8 kPa (0.26 kg/cm <sup>2</sup> ) | 2,890 mm      |

## MAX. PERMITTED BUCKETS

*Note: 1. Bucket size based on SAE-J296, heaped material with a 1:1 angle of repose.  
2. "Max permitted sizes" are for reference only and are not necessarily available from the factory.*

- Max. permitted sizes for direct fit buckets:  
LC undercarriage with counterweight 2,100 kg / 2,450 kg\*

| Description                    | Unit | 4.6 m Boom |            |            |
|--------------------------------|------|------------|------------|------------|
|                                |      | 2.1 m Arm  | 2.5 m Arm  | 3.0 m Arm  |
| GP bucket 1.5 t/m <sup>3</sup> | l    | 925 / 975* | 825 / 900* | 725 / 800* |
| GP bucket 1.8 t/m <sup>3</sup> | l    | 800 / 850* | 725 / 775* | 650 / 700* |

- Max. permitted sizes for quick fit buckets:  
LC undercarriage with counterweight 2,100 kg / 2,450 kg\*

| Description                    | Unit | 4.6 m Boom |            |            |
|--------------------------------|------|------------|------------|------------|
|                                |      | 2.1 m Arm  | 2.5 m Arm  | 3.0 m Arm  |
| GP bucket 1.5 t/m <sup>3</sup> | l    | 875 / 950* | 800 / 850* | 700 / 750* |
| GP bucket 1.8 t/m <sup>3</sup> | l    | 775 / 825* | 700 / 750* | 600 / 650* |

- Max. permitted sizes for direct fit buckets:  
LCM undercarriage with counterweight 2,100 kg / 2,450 kg\*

| Description                    | Unit | 4.6 m Boom     |              |            |
|--------------------------------|------|----------------|--------------|------------|
|                                |      | 2.1 m Arm      | 2.5 m Arm    | 3.0 m Arm  |
| GP bucket 1.5 t/m <sup>3</sup> | l    | 1,025 / 1,075* | 925 / 1,000* | 825 / 875* |
| GP bucket 1.8 t/m <sup>3</sup> | l    | 875 / 950*     | 800 / 875*   | 725 / 775* |

- Max. permitted sizes for quick fit buckets:  
LCM undercarriage with counterweight 2,100 kg / 2,450 kg\*

| Description                    | Unit | 4.6 m Boom   |            |            |
|--------------------------------|------|--------------|------------|------------|
|                                |      | 2.1 m Arm    | 2.5 m Arm  | 3.0 m Arm  |
| GP bucket 1.5 t/m <sup>3</sup> | l    | 975 / 1,050* | 875 / 950* | 775 / 850* |
| GP bucket 1.8 t/m <sup>3</sup> | l    | 850 / 900*   | 775 / 825* | 675 / 725* |

## BUCKET & ARM COMBINATION

● LC undercarriage, Volvo K-GP bucket (straight side)

| Description               |                                    |       | Standard bucket | Reinforced bucket | Wide bucket     |                 |
|---------------------------|------------------------------------|-------|-----------------|-------------------|-----------------|-----------------|
| Bucket capacity           | SAE                                |       | 520 l           | 520 l             | 570 l           | 640 l           |
|                           | CECE                               |       | 450 l           | 450 l             | 500 l           | 550 l           |
| Bucket width              | with side cutter                   |       | 1,035 mm        | 1,035 mm          | 1,110 mm        | 1,175 mm        |
|                           | without side cutter                |       | 925 mm          | 925 mm            | 1,000 mm        | 1,065 mm        |
| Weight (with side cutter) |                                    |       | 394 kg          | 417 kg            | 412 kg          | 440 kg          |
| No. of teeth              |                                    |       | 5               | 5                 | 5               | 5               |
| Application               |                                    |       | General purpose | Extreme service   | Loading service | Loading service |
| 2,100 kg counterweight    | Monoblock boom 4.6 m + arm options | 2.1 m | A               | A                 | A               | A               |
|                           |                                    | 2.5 m | A               | A                 | A               | B               |
|                           |                                    | 3.0 m | A               | B                 | B               | C               |
| 2,450 kg counterweight    | Monoblock boom 4.6 m + arm options | 2.1 m | A               | A                 | A               | A               |
|                           |                                    | 2.5 m | A               | A                 | A               | A               |
|                           |                                    | 3.0 m | A               | A                 | B               | C               |

● LC undercarriage, Volvo HARDOX 400® bucket (curved side)

| Description            |                                    |       | Direct fit - GP bucket |                 |                 | Quick fit -GP bucket |                 |
|------------------------|------------------------------------|-------|------------------------|-----------------|-----------------|----------------------|-----------------|
| Bucket capacity        | SAE                                |       | 500 l                  | 600 l           | 750 l           | 500 l                | 600 l           |
|                        | CECE                               |       | 450 l                  | 540 l           | 670 l           | 450 l                | 540 l           |
| Cutting width          |                                    |       | 800 mm                 | 900 mm          | 1,100 mm        | 800 mm               | 900 mm          |
| Weight                 |                                    |       | 390 kg                 | 420 kg          | 490 kg          | 375 kg               | 410 kg          |
| No. of teeth           |                                    |       | 4                      | 4               | 5               | 4                    | 4               |
| Application            |                                    |       | Tough condition        | Tough condition | Tough condition | Tough condition      | Tough condition |
| 2,100 kg counterweight | Monoblock boom 4.6 m + arm options | 2.1 m | A                      | A               | C               | A                    | A               |
|                        |                                    | 2.5 m | A                      | B               | C               | A                    | B               |
|                        |                                    | 3.0 m | A                      | C               | D               | B                    | C               |
| 2,450 kg counterweight | Monoblock boom 4.6 m + arm options | 2.1 m | A                      | A               | B               | A                    | A               |
|                        |                                    | 2.5 m | A                      | A               | C               | A                    | A               |
|                        |                                    | 3.0 m | A                      | B               | D               | A                    | C               |

A: Applicable for general purpose up to 2,000 kg/m<sup>3</sup>

B: Applicable for general purpose up to 1,800 kg/m<sup>3</sup>

C: Applicable for general purpose up to 1,500 kg/m<sup>3</sup>

D: Applicable for general purpose up to 1,200 kg/m<sup>3</sup>

## BUCKET & ARM COMBINATION

### ● LCM undercarriage, Volvo K-GP bucket (straight side)

| Description               |                                    |       | Standard bucket | Reinforced bucket | Wide bucket     |                 |
|---------------------------|------------------------------------|-------|-----------------|-------------------|-----------------|-----------------|
| Bucket capacity           | SAE                                |       | 520 l           | 520 l             | 570 l           | 640 l           |
|                           | CECE                               |       | 450 l           | 450 l             | 500 l           | 550 l           |
| Bucket width              | with side cutter                   |       | 1,035 mm        | 1,035 mm          | 1,110 mm        | 1,175 mm        |
|                           | without side cutter                |       | 925 mm          | 925 mm            | 1,000 mm        | 1,065 mm        |
| Weight (with side cutter) |                                    |       | 394 kg          | 417 kg            | 412 kg          | 440 kg          |
| No. of teeth              |                                    |       | 5               | 5                 | 5               | 5               |
| Application               |                                    |       | General purpose | Extreme service   | Loading service | Loading service |
| 2,100 kg counterweight    | Monoblock boom 4.6 m + arm options | 2.1 m | A               | A                 | A               | A               |
|                           |                                    | 2.5 m | A               | A                 | A               | A               |
|                           |                                    | 3.0 m | A               | A                 | A               | B               |
| 2,450 kg counterweight    | Monoblock boom 4.6 m + arm options | 2.1 m | A               | A                 | A               | A               |
|                           |                                    | 2.5 m | A               | A                 | A               | A               |
|                           |                                    | 3.0 m | A               | A                 | A               | B               |

### ● LCM undercarriage, Volvo HARDOX 400® bucket (curved side)

| Description            |                                    |       | Direct fit - GP bucket |                 |                 | Quick fit -GP bucket |                 |
|------------------------|------------------------------------|-------|------------------------|-----------------|-----------------|----------------------|-----------------|
| Bucket capacity        | SAE                                |       | 500 l                  | 600 l           | 750 l           | 500 l                | 600 l           |
|                        | CECE                               |       | 450 l                  | 540 l           | 670 l           | 450 l                | 540 l           |
| Cutting width          |                                    |       | 800 mm                 | 900 mm          | 1,100 mm        | 800 mm               | 900 mm          |
| Weight                 |                                    |       | 390 kg                 | 420 kg          | 490 kg          | 375 kg               | 410 kg          |
| No. of teeth           |                                    |       | 4                      | 4               | 5               | 4                    | 4               |
| Application            |                                    |       | Tough condition        | Tough condition | Tough condition | Tough condition      | Tough condition |
| 2,100 kg counterweight | Monoblock boom 4.6 m + arm options | 2.1 m | A                      | A               | B               | A                    | A               |
|                        |                                    | 2.5 m | A                      | A               | C               | A                    | A               |
|                        |                                    | 3.0 m | A                      | B               | C               | A                    | B               |
| 2,450 kg counterweight | Monoblock boom 4.6 m + arm options | 2.1 m | A                      | A               | A               | A                    | A               |
|                        |                                    | 2.5 m | A                      | A               | B               | A                    | A               |
|                        |                                    | 3.0 m | A                      | A               | C               | A                    | B               |

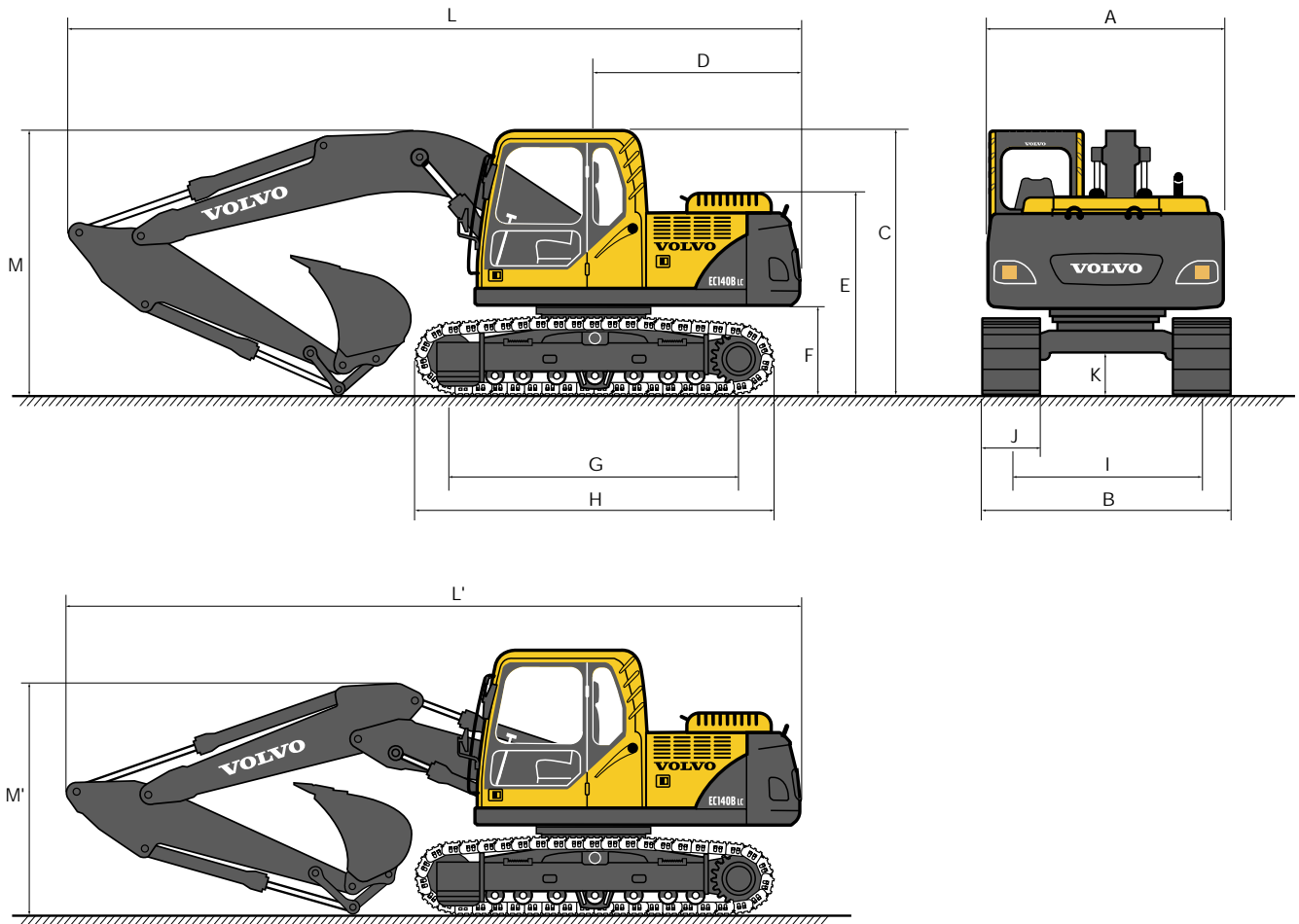
A: Applicable for general purpose up to 2,000 kg/m<sup>3</sup>

B: Applicable for general purpose up to 1,800 kg/m<sup>3</sup>

C: Applicable for general purpose up to 1,500 kg/m<sup>3</sup>

D: Applicable for general purpose up to 1,200 kg/m<sup>3</sup>

## DIMENSIONS



• LC

| Description                        | Unit | 4.6 m Boom |           |           |
|------------------------------------|------|------------|-----------|-----------|
|                                    |      | 2.1 m Arm  | 2.5 m Arm | 3.0 m Arm |
| A. Overall width of superstructure | mm   | 2,450      | 2,450     | 2,450     |
| B. Overall width                   | mm   | 2,590      | 2,590     | 2,590     |
| C. Overall height of cab           | mm   | 2,770      | 2,770     | 2,770     |
| D. Tail swing radius               | mm   | 2,130      | 2,130     | 2,130     |
| E. Overall height of engine hood   | mm   | 2,080      | 2,080     | 2,080     |
| F. Counterweight clearance *       | mm   | 900        | 900       | 900       |
| G. Tumbler length                  | mm   | 3,000      | 3,000     | 3,000     |
| H. Track length                    | mm   | 3,740      | 3,740     | 3,740     |
| I. Track gauge                     | mm   | 1,990      | 1,990     | 1,990     |
| J. Shoe width                      | mm   | 600        | 600       | 600       |
| K. Min. ground clearance *         | mm   | 430        | 430       | 430       |
| L. Overall length                  | mm   | 7,630      | 7,630     | 7,510     |
| L'. Overall length                 | mm   | 7,610      | 7,550     | 7,320     |
| M. Overall height of boom          | mm   | 2,710      | 2,830     | 3,210     |
| M'. Overall height of boom         | mm   | 2,720      | 2,950     | 3,350     |

\* Without shoe grouser



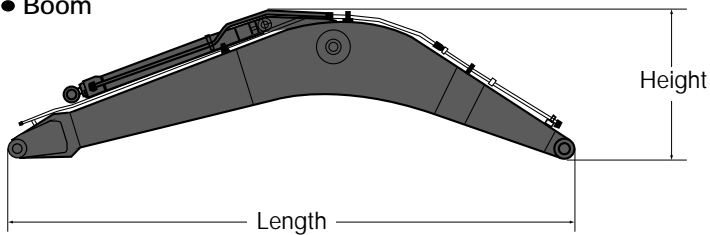
# DIMENSIONS

## • LCM

| Description                        | Unit | 4.6 m Boom |           |           |
|------------------------------------|------|------------|-----------|-----------|
|                                    |      | 2.1 m Arm  | 2.5 m Arm | 3.0 m Arm |
| A. Overall width of superstructure | mm   | 2,450      | 2,450     | 2,450     |
| B. Overall width                   | mm   | 2,690      | 2,690     | 2,690     |
| C. Overall height of cab           | mm   | 2,960      | 2,960     | 2,960     |
| D. Tail swing radius               | mm   | 2,130      | 2,130     | 2,130     |
| E. Overall height of engine hood   | mm   | 2,270      | 2,270     | 2,270     |
| F. Counterweight clearance *       | mm   | 1,080      | 1,080     | 1,080     |
| G. Tumbler length                  | mm   | 3,000      | 3,000     | 3,000     |
| H. Track length                    | mm   | 3,790      | 3,790     | 3,790     |
| I. Track gauge                     | mm   | 1,990      | 1,990     | 1,990     |
| J. Shoe width                      | mm   | 700        | 700       | 700       |
| K. Min. ground clearance *         | mm   | 540        | 540       | 540       |
| L. Overall length                  | mm   | 7,600      | 7,620     | 7,580     |
| L'. Overall length                 | mm   | 7,630      | 7,600     | 7,420     |
| M. Overall height of boom          | mm   | 2,780      | 2,900     | 3,160     |
| M'. Overall height of boom         | mm   | 2,820      | 2,990     | 3,370     |

\* Without shoe grouser

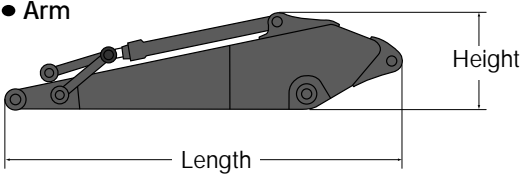
## • Boom



| Description | 4.6 m    | 4.6 m 2-piece |
|-------------|----------|---------------|
| Length      | 4,770 mm | 4,765 mm      |
| Height      | 1,370 mm | 1,225 mm      |
| Width       | 545 mm   | 545 mm        |
| Weight      | 1,000 kg | 1,280 kg      |

\* Includes cylinder, pin and piping

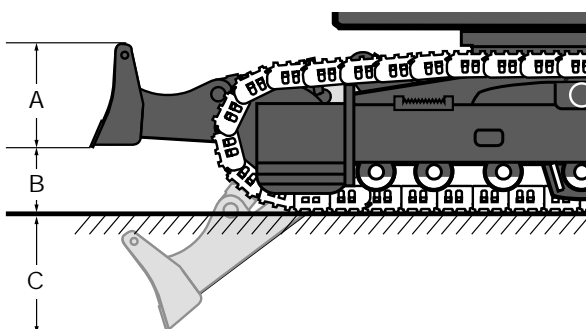
## • Arm



| Description | 2.1 m    | 2.5 m    | 3.0 m    |
|-------------|----------|----------|----------|
| Length      | 2,800 mm | 3,190 mm | 3,690 mm |
| Height      | 760 mm   | 760 mm   | 760 mm   |
| Width       | 300 mm   | 300 mm   | 300 mm   |
| Weight      | 570 kg   | 645 kg   | 720 kg   |

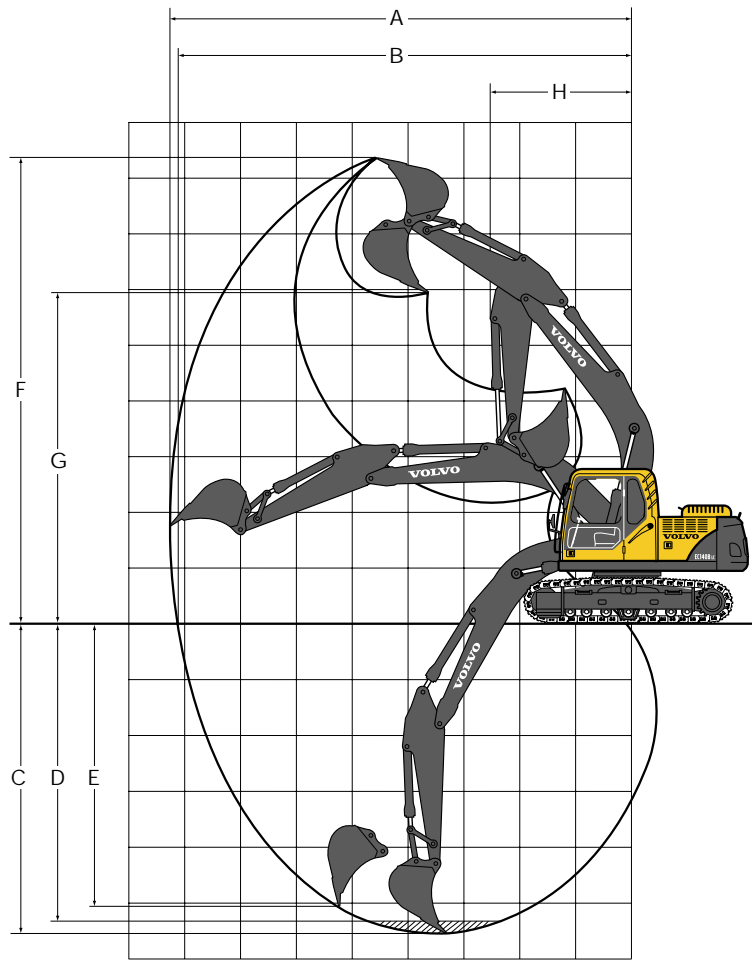
\* Includes cylinder, piping and linkage

## • Front dozer blade (for LC only)



| Description      | Measurement |
|------------------|-------------|
| A. Height        | 580 mm      |
| Width            | 2,590 mm    |
| Weight           | 900 kg      |
| B. Lift height   | 504 mm      |
| C. Digging depth | 562 mm      |

## WORKING RANGES & DIGGING FORCES



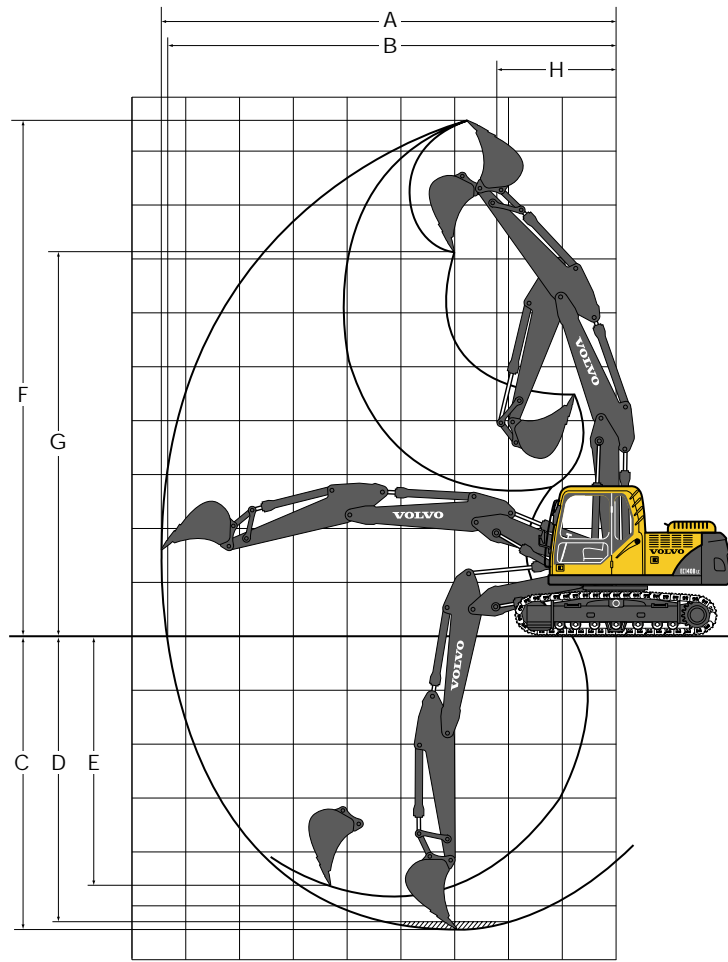
### • 4.6 m monoblock boom with direct fit bucket

| Description                         | Unit | LC        |           |           | LCM       |           |           |
|-------------------------------------|------|-----------|-----------|-----------|-----------|-----------|-----------|
|                                     |      | 2.1 m Arm | 2.5 m Arm | 3.0 m Arm | 2.1 m Arm | 2.5 m Arm | 3.0 m Arm |
| A. Max. digging reach               | mm   | 7,960     | 8,330     | 8,820     | 7,960     | 8,330     | 8,820     |
| B. Max. digging reach on ground     | mm   | 7,810     | 8,190     | 8,690     | 7,780     | 8,160     | 8,660     |
| C. Max. digging depth               | mm   | 5,130     | 5,530     | 6,030     | 4,980     | 5,380     | 5,880     |
| D. Max. digging depth (8° level)    | mm   | 4,870     | 5,310     | 5,850     | 4,710     | 5,160     | 5,690     |
| E. Max. vertical wall digging depth | mm   | 4,580     | 5,060     | 5,500     | 4,430     | 4,900     | 5,330     |
| F. Max. cutting height              | mm   | 8,180     | 8,420     | 8,770     | 8,340     | 8,570     | 8,930     |
| G. Max. dumping height              | mm   | 5,740     | 5,980     | 6,320     | 5,900     | 6,130     | 6,470     |
| H. Min. front swing radius          | mm   | 2,570     | 2,630     | 2,840     | 2,570     | 2,640     | 2,830     |

### • Digging forces with direct fit bucket

| Description                                       | Unit | LC        |                |                | LCM            |                |                |                |
|---|------|-----------|----------------|----------------|----------------|----------------|----------------|----------------|
|   |      | 2.1 m Arm | 2.5 m Arm      | 3.0 m Arm      | 2.1 m Arm      | 2.5 m Arm      | 3.0 m Arm      |                |
| Bucket radius                                     | mm   | 1,250     | 1,250          | 1,250          | 1,250          | 1,250          | 1,250          |                |
| Breakout force – bucket<br>(Normal / Power boost) | SAE  | kN        | 82.4 / 87.3    | 82.4 / 87.3    | 82.4 / 87.3    | 82.4 / 87.3    | 82.4 / 87.3    | 82.4 / 87.3    |
|   |      | kg        | 8,400 / 8,900  | 8,400 / 8,900  | 8,400 / 8,900  | 8,400 / 8,900  | 8,400 / 8,900  | 8,400 / 8,900  |
| Breakout force – bucket<br>(Normal / Power boost) | ISO  | kN        | 93.2 / 98.1    | 93.2 / 98.1    | 93.2 / 98.1    | 93.2 / 98.1    | 93.2 / 98.1    | 93.2 / 98.1    |
|   |      | kg        | 9,500 / 10,000 | 9,500 / 10,000 | 9,500 / 10,000 | 9,500 / 10,000 | 9,500 / 10,000 | 9,500 / 10,000 |
| Tearout force – arm<br>(Normal / Power boost)     | SAE  | kN        | 69.6 / 73.5    | 61.8 / 65.7    | 54.9 / 58.8    | 69.6 / 73.5    | 61.8 / 65.7    | 54.9 / 58.8    |
|   |      | kg        | 7,100 / 7,500  | 6,300 / 6,700  | 5,600 / 6,000  | 7,100 / 7,500  | 6,300 / 6,700  | 5,600 / 6,000  |
| Tearout force – arm<br>(Normal / Power boost)     | ISO  | kN        | 71.6 / 75.5    | 63.7 / 67.7    | 56.9 / 59.8    | 71.6 / 75.5    | 63.7 / 67.7    | 56.9 / 59.8    |
|   |      | kg        | 7,300 / 7,700  | 6,500 / 6,900  | 5,800 / 6,100  | 7,300 / 7,700  | 6,500 / 6,900  | 5,800 / 6,100  |
| Rotation angle, bucket                            | deg  | 174       | 174            | 173            | 174            | 174            | 173            |                |

## WORKING RANGES & DIGGING FORCES



### • 4.6 m 2-piece boom with direct fit bucket

| Description                         | Unit | LC        |           |           | LCM       |           |           |
|-------------------------------------|------|-----------|-----------|-----------|-----------|-----------|-----------|
|                                     |      | 2.1 m Arm | 2.5 m Arm | 3.0 m Arm | 2.1 m Arm | 2.5 m Arm | 3.0 m Arm |
| A. Max. digging reach               | mm   | 8,050     | 8,440     | 8,930     | 8,050     | 8,440     | 8,930     |
| B. Max. digging reach on ground     | mm   | 7,910     | 8,300     | 8,800     | 7,880     | 8,270     | 8,780     |
| C. Max. digging depth               | mm   | 5,060     | 5,450     | 5,960     | 4,900     | 5,300     | 5,800     |
| D. Max. digging depth (8' level)    | mm   | 4,940     | 5,340     | 5,850     | 4,780     | 5,180     | 5,690     |
| E. Max. vertical wall digging depth | mm   | 4,270     | 4,660     | 5,190     | 4,120     | 5,400     | 5,040     |
| F. Max. cutting height              | mm   | 9,250     | 9,610     | 10,090    | 9,400     | 9,770     | 10,240    |
| G. Max. dumping height              | mm   | 6,780     | 7,140     | 7,630     | 6,930     | 7,290     | 7,780     |
| H. Min. front swing radius          | mm   | 1,960     | 2,220     | 2,640     | 1,960     | 2,220     | 2,640     |















### • Digging forces with direct fit bucket

| Description                                       | Unit | LC        |                |                | LCM            |                |                |                |
|---|------|-----------|----------------|----------------|----------------|----------------|----------------|----------------|
|   |      | 2.1 m Arm | 2.5 m Arm      | 3.0 m Arm      | 2.1 m Arm      | 2.5 m Arm      | 3.0 m Arm      |                |
| Bucket radius                                     | mm   | 1,250     | 1,250          | 1,250          | 1,250          | 1,250          | 1,250          |                |
| Breakout force – bucket<br>(Normal / Power boost) | SAE  | kN        | 82.4 / 87.3    | 82.4 / 87.3    | 82.4 / 87.3    | 82.4 / 87.3    | 82.4 / 87.3    | 82.4 / 87.3    |
|   |      | kg        | 8,400 / 8,900  | 8,400 / 8,900  | 8,400 / 8,900  | 8,400 / 8,900  | 8,400 / 8,900  | 8,400 / 8,900  |
| Breakout force – bucket<br>(Normal / Power boost) | ISO  | kN        | 93.2 / 98.1    | 93.2 / 98.1    | 93.2 / 98.1    | 93.2 / 98.1    | 93.2 / 98.1    | 93.2 / 98.1    |
|   |      | kg        | 9,500 / 10,000 | 9,500 / 10,000 | 9,500 / 10,000 | 9,500 / 10,000 | 9,500 / 10,000 | 9,500 / 10,000 |
| Tearout force – arm<br>(Normal / Power boost)     | SAE  | kN        | 69.6 / 73.5    | 61.8 / 65.7    | 54.9 / 58.8    | 69.6 / 73.5    | 61.8 / 65.7    | 54.9 / 58.8    |
|   |      | kg        | 7,100 / 7,500  | 6,300 / 6,700  | 5,600 / 6,000  | 7,100 / 7,500  | 6,300 / 6,700  | 5,600 / 6,000  |
| Tearout force – arm<br>(Normal / Power boost)     | ISO  | kN        | 71.6 / 75.5    | 63.7 / 67.7    | 56.9 / 59.8    | 71.6 / 75.5    | 63.7 / 67.7    | 56.9 / 59.8    |
|   |      | kg        | 7,300 / 7,700  | 6,500 / 6,900  | 5,800 / 6,100  | 7,300 / 7,700  | 6,500 / 6,900  | 5,800 / 6,100  |
| Rotation angle, bucket                            | deg  | 174       | 174            | 173            | 174            | 174            | 173            |                |

## LIFTING CAPACITY (At the arm and without bucket)

Note: For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick fit from the following values.

### EC140B LC















|  Across undercarriage<br> Along undercarriage | Lifting hook related to ground level | 1.5 m   |   | 3.0 m   |   | 4.5 m   |   | 6.0 m   |  | 7.5 m   |   | Max. reach  |   |                    |  |  |
|---|--------------------------------------|---|---|---|---|---|---|---|--|---|---|---|---|--------------------|--|--|
|   |                                      |  |  |  |  |  |  |  |  |  |  |  |  | Max. mm            |  |  |
| with 600 mm shoe<br>2,100 kg CWT<br>Monoblock boom<br>4.6 m + Arm 2.1 m   | 6.0 m                                | kg  |   |   |   | *3,330  |   | *3,330  |  |   |   | *3,510 3,190 4,880  |   |                    |  |  |
|   | 4.5 m                                | kg  |   |   |   | *3,480  |   | *3,480  |  |   |   | 3,510 2,300 5,970   |   |                    |  |  |
|   | 3.0 m                                | kg  |   | *6,230  | *6,230  | *4,330  | 3,450   | 3,430   | 2,230  |   |   | 3,000 1,950 6,530   |   |                    |  |  |
|   | 1.5 m                                | kg  |   |   |   | 5,180   |   | 3,240   |  | 3,340   |   | 2,150   |   | 2,830 1,820 6,710  |  |  |
|   | 0 m                                  | kg  |   |   |   | *5,180  | *5,180  | 5,030   | 3,100  | 3,270   | 2,090   |   |   | 2,900 1,860 6,530  |  |  |
|   | -1.5 m                               | kg  | *4,800  | *4,800  | *9,460  | 5,640   | 4,990   | 3,070   |  |   |   |   | 3,290 2,090 5,970   |                    |  |  |
|   | -3.0 m                               | kg  |   |   | *8,230  | 5,760   | 5,060   | 3,130   |  |   |   |   | 4,460 2,800 4,900   |                    |  |  |
| with 600 mm shoe<br>2,100 kg CWT<br>Monoblock boom<br>4.6 m + Arm 2.5 m   | 6.0 m                                | kg  |   |   |   | *2,830  |   | *2,830  |  |   |   | *3,190 2,740 5,390  |   |                    |  |  |
|   | 4.5 m                                | kg  |   |   |   | *3,070  |   | *3,070  |  | *3,180  | 2,300   |   |   | *3,080 2,060 6,380 |  |  |
|   | 3.0 m                                | kg  |   | *5,300  | *5,300  | *3,940  | 3,470   | 3,440   | 2,230  |   |   | 2,730 1,770 6,910   |   |                    |  |  |
|   | 1.5 m                                | kg  |   | *6,300  | 5,840   | *5,060  | 3,230   | 3,330   | 2,130  |   |   | 2,590 1,660 7,080   |   |                    |  |  |
|   | 0 m                                  | kg  |   | *5,770  | 5,560   | 5,000   | 3,070   | 3,240   | 2,050  |   |   | 2,640 1,680 6,910   |   |                    |  |  |
|   | -1.5 m                               | kg  | *4,400  | *4,400  | *9,280  | 5,530   | 4,930   | 3,010   | 3,210  | 2,030   |   |   | 2,940 1,860 6,390   |                    |  |  |
|   | -3.0 m                               | kg  | *8,600  | *8,600  | *8,670  | 5,630   | 4,970   | 3,050   |  |   |   |   | 3,790 2,380 5,400   |                    |  |  |
| with 600 mm shoe<br>2,100 kg CWT<br>Monoblock boom<br>4.6 m + Arm 3.0 m   | 6.0 m                                | kg  |   |   |   |   |   | *2,790  |  | 2,310   |   | *2,720 2,290 6,020  |   |                    |  |  |
|   | 4.5 m                                | kg  |   |   |   |   |   | *2,760  |  | 2,310   |   | *2,550 1,790 6,920  |   |                    |  |  |
|   | 3.0 m                                | kg  |   |   |   | *3,420  | *3,420  | *3,120  | 2,230  |   |   | 2,430 1,560 7,410   |   |                    |  |  |
|   | 1.5 m                                | kg  |   | *7,290  | 5,970   | *4,600  | 3,250   | 3,320   | 2,120  | 2,340   | 1,490   |   |   | 2,310 1,470 7,570  |  |  |
|   | 0 m                                  | kg  |   | *6,230  | 5,540   | 4,980   | 3,040   | 3,210   | 2,020  |   |   | 2,340 1,480 7,410   |   |                    |  |  |
|   | -1.5 m                               | kg  | *3,800  | *3,800  | *8,380  | 5,430   | 4,860   | 2,950   | 3,150  | 1,970   |   |   | 2,570 1,610 6,930   |                    |  |  |
|   | -3.0 m                               | kg  | *7,040  | *7,040  | *9,060  | 5,490   | 4,870   | 2,950   | 3,180  | 1,990   |   |   | 3,160 1,980 6,030   |                    |  |  |
| with 600 mm shoe<br>2,450 kg CWT<br>Monoblock boom<br>4.6 m + Arm 2.1 m   | 6.0 m                                | kg  |   |   |   | *3,330  |   | *3,330  |  |   |   | *3,510 3,400 4,880  |   |                    |  |  |
|   | 4.5 m                                | kg  |   |   |   | *3,480  |   | *3,480  |  |   |   | *3,570 2,450 5,970  |   |                    |  |  |
|   | 3.0 m                                | kg  |   | *6,230  | *6,230  | *4,330  | 3,670   | 3,630   | 2,390  |   |   | 3,170 2,090 6,530   |   |                    |  |  |
|   | 1.5 m                                | kg  |   |   |   | *5,390  |   | 3,460   |  | 3,540   |   | 2,310   |   | 3,000 1,960 6,710  |  |  |
|   | 0 m                                  | kg  |   | *5,180  | *5,180  | 5,320   | 3,320   | 3,470   | 2,240  |   |   | 3,070 2,000 6,530   |   |                    |  |  |
|   | -1.5 m                               | kg  | *4,800  | *4,800  | *9,460  | 6,040   | 5,280   | 3,290   |  |   |   |   | 3,480 2,250 5,970   |                    |  |  |
|   | -3.0 m                               | kg  |   |   | *8,230  | 6,160   | 5,360   | 3,360   |  |   |   |   | 4,720 3,000 4,900   |                    |  |  |
| with 600 mm shoe<br>2,450 kg CWT<br>Monoblock boom<br>4.6 m + Arm 2.5 m   | 6.0 m                                | kg  |   |   |   | *2,830  |   | *2,830  |  |   |   | *3,190 2,920 5,390  |   |                    |  |  |
|   | 4.5 m                                | kg  |   |   |   | *3,070  |   | *3,070  |  | *3,180  | 2,450   |   |   | *3,080 2,200 6,380 |  |  |
|   | 3.0 m                                | kg  |   | *5,300  | *5,300  | *3,940  | 3,690   | *3,480  | 2,390  |   |   | 2,900 1,900 6,910   |   |                    |  |  |
|   | 1.5 m                                | kg  |   | *6,300  | 6,240   | *5,060  | 3,460   | 3,520   | 2,290  |   |   | 2,740 1,790 7,080   |   |                    |  |  |
|   | 0 m                                  | kg  |   | *5,770  | *5,770  | 5,290   | 3,290   | 3,440   | 2,210  |   |   | 2,800 1,810 6,910   |   |                    |  |  |
|   | -1.5 m                               | kg  | *4,400  | *4,400  | *9,280  | 5,930   | 5,220   | 3,230   | 3,410  | 2,180   |   |   | 3,120 2,010 6,390   |                    |  |  |
|   | -3.0 m                               | kg  | *8,600  | *8,600  | *8,670  | 6,030   | 5,260   | 3,270   |  |   |   |   | 4,010 2,560 5,400   |                    |  |  |
| with 600 mm shoe<br>2,450 kg CWT<br>Monoblock boom<br>4.6 m + Arm 3.0 m   | 6.0 m                                | kg  |   |   |   |   |   | *2,790  |  | 2,470   |   | *2,720 2,450 6,020  |   |                    |  |  |
|   | 4.5 m                                | kg  |   |   |   |   |   | *2,760  |  | 2,470   |   | *2,550 1,920 6,920  |   |                    |  |  |
|   | 3.0 m                                | kg  |   |   |   | *3,420  | *3,420  | *3,120  | 2,390  |   |   | *2,540 1,680 7,410  |   |                    |  |  |
|   | 1.5 m                                | kg  |   | *7,290  | 6,360   | *4,600  | 3,470   | 3,510   | 2,270  | 2,490   | 1,610   |   |   | 2,450 1,580 7,570  |  |  |
|   | 0 m                                  | kg  |   | *6,230  | 5,930   | 5,270   | 3,270   | 3,400   | 2,170  |   |   | 2,490 1,600 7,410   |   |                    |  |  |
|   | -1.5 m                               | kg  | *3,800  | *3,800  | *8,380  | 5,830   | 5,160   | 3,170   | 3,350  | 2,120   |   |   | 2,730 1,750 6,930   |                    |  |  |
|   | -3.0 m                               | kg  | *7,040  | *7,040  | *9,060  | 5,880   | 5,170   | 3,180   | 3,380  | 2,150   |   |   | 3,350 2,130 6,030   |                    |  |  |

- Notes:
- Machine in "Fine Mode-F" (Power Boost), for lifting capacities.
  - The above loads are in compliance with SAE and ISO Hydraulic Excavator Lifting Capacity Standards.
  - Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.
  - Rated loads marked with an asterisk (\*) are limited by hydraulic capacity rather than tipping load.

## LIFTING CAPACITY (At the arm and without bucket)

Note: For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick fit from the following values.

### EC140B LC
















|  Across undercarriage<br> Along undercarriage | Lifting hook related to ground level | 1.5 m   |   | 3.0 m   |   | 4.5 m   |   | 6.0 m   |   | 7.5 m   |   | Max. reach  |   |         |
|---|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|   |                                      |  |  |  |  |  |  |  |  |  |  |  |  | Max. mm |
| with 600 mm shoe<br>2,450 kg CWT<br>2-piece boom<br>4.6 m + Arm 2.1 m   | 7.5 m kg                             |   |   |   |   |   |   |   |   |   |   | *5,360  | *5,360  | 2,900   |
|   | 6.0 m kg                             |   |   | *5,080  | *5,080  | *4,810  | 3,940   |   |   |   |   | *3,820  | 3,260   | 5,010   |
|   | 4.5 m kg                             |   |   | *5,230  | *5,230  | *4,950  | 3,880   | 3,710   | 2,440   |   |   | *3,430  | 2,380   | 6,070   |
|   | 3.0 m kg                             |   |   |   |   | *5,740  | 3,680   | 3,660   | 2,390   |   |   | 3,110   | 2,030   | 6,620   |
|   | 1.5 m kg                             |   |   |   |   | 5,510   | 3,450   | 3,560   | 2,300   |   |   | 2,940   | 1,910   | 6,800   |
|   | 0 m kg                               |   |   |   |   | 5,340   | 3,310   | 3,480   | 2,230   |   |   | 3,020   | 1,950   | 6,630   |
|   | -1.5 m kg                            |   |   | *9,280  | 6,000   | 5,290   | 3,270   | 3,480   | 2,230   |   |   | 3,420   | 2,190   | 6,080   |
| with 600 mm shoe<br>2,450 kg CWT<br>2-piece boom<br>4.6 m + Arm 2.5 m   | 7.5 m kg                             |   |   | *5,080  | *5,080  |   |   |   |   |   |   | *3,990  | *3,990  | 3,740   |
|   | 6.0 m kg                             |   |   | *4,210  | *4,210  | *4,320  | 4,000   |   |   |   |   | *3,080  | 2,800   | 5,530   |
|   | 4.5 m kg                             |   |   | *3,960  | *3,960  | *4,550  | 3,930   | 3,740   | 2,460   |   |   | *2,810  | 2,130   | 6,500   |
|   | 3.0 m kg                             |   |   | *7,570  | 7,000   | *5,370  | 3,710   | 3,660   | 2,390   |   |   | *2,750  | 1,840   | 7,020   |
|   | 1.5 m kg                             |   |   |   |   | 5,520   | 3,460   | 3,550   | 2,280   |   |   | 2,690   | 1,740   | 7,180   |
|   | 0 m kg                               |   |   | *5,230  | *5,230  | 5,310   | 3,280   | 3,450   | 2,200   |   |   | 2,750   | 1,760   | 7,020   |
|   | -1.5 m kg                            |   |   | *8,810  | 5,890   | 5,230   | 3,210   | 3,420   | 2,170   |   |   | 3,060   | 1,950   | 6,510   |
| with 600 mm shoe<br>2,450 kg CWT<br>2-piece boom<br>4.6 m + Arm 3.0 m   | 7.5 m kg                             |   |   | *4,120  | *4,120  | *3,450  | *3,450  |   |   |   |   | *3,100  | *3,100  | 4,640   |
|   | 6.0 m kg                             |   |   |   |   | *3,660  | *3,660  | *3,010  | 2,480   |   |   | *2,530  | 2,350   | 6,160   |
|   | 4.5 m kg                             |   |   | *2,850  | *2,850  | *3,600  | *3,600  | *3,750  | 2,490   |   |   | *2,330  | 1,860   | 7,050   |
|   | 3.0 m kg                             |   |   |   |   | *4,670  | 3,760   | 3,670   | 2,400   | *2,430  | 1,640   | *2,280  | 1,630   | 7,520   |
|   | 1.5 m kg                             |   |   |   |   | 5,550   | 3,480   | 3,540   | 2,270   | 2,500   | 1,600   | *2,350  | 1,540   | 7,680   |
|   | 0 m kg                               |   |   |   |   | 5,300   | 3,250   | 3,420   | 2,160   | 2,460   | 1,560   | 2,450   | 1,550   | 7,530   |
|   | -1.5 m kg                            |   | *3,460  | *3,460  | *7,910  | 5,790   | 5,170   | 3,150   | 3,360   | 2,110   |   | 2,680   | 1,700   | 7,050   |

- Notes:
1. Machine in "Fine Mode-F" (Power Boost), for lifting capacities.
  2. The above loads are in compliance with SAE and ISO Hydraulic Excavator Lifting 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.

## LIFTING CAPACITY (At the arm and without bucket)

Note: For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick fit from the following values.

### EC140B LCM















|  Across undercarriage<br> Along undercarriage | Lifting hook related to ground level | 1.5 m   |   | 3.0 m   |   | 4.5 m   |   | 6.0 m   |   | 7.5 m   |   | Max. reach  |   |   |         |
|---|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|   |                                      |  |  |  |  |  |  |  |  |  |  |  |  |  | Max. mm |
| with 700 mm shoe<br>2,100 kg CWT<br>Monoblock boom<br>4.6 m + Arm 2.1 m   | 6.0 m                                | kg  |   |   |   | *3,330  | *3,330  |   |   |   |   | *3,510  | 3,480   | 4,880   |         |
|   | 4.5 m                                | kg  |   |   |   | *3,480  | *3,480  |   |   |   |   | 3,570   | 2,520   | 5,970   |         |
|   | 3.0 m                                | kg  |   | *6,230  | *6,230  | *4,330  | 3,770   | 3,740   | 2,460   |   |   | 3,270   | 2,150   | 6,530   |         |
|   | 1.5 m                                | kg  |   |   |   | *5,390  | 3,560   | 3,650   | 2,370   |   |   | 3,090   | 2,020   | 6,710   |         |
|   | 0 m                                  | kg  |   | *5,180  | *5,180  | 5,490   | 3,420   | 3,580   | 2,310   |   |   | 3,170   | 2,060   | 6,530   |         |
|   | -1.5 m                               | kg  | *4,800  | *4,800  | *9,460  | 6,240   | 5,450   | 3,390   |   |   |   |   | 3,600   | 2,320   | 5,970   |
|   | -3.0 m                               | kg  |   |   | *8,230  | 6,360   | *5,480  | 3,460   |   |   |   |   | *4,850  | 3,090   | 4,900   |
| with 700 mm shoe<br>2,100 kg CWT<br>Monoblock boom<br>4.6 m + Arm 2.5 m   | 6.0 m                                | kg  |   |   |   | *2,830  | *2,830  |   |   |   |   | *3,190  | 3,000   | 5,390   |         |
|   | 4.5 m                                | kg  |   |   |   | *3,070  | *3,070  | *3,180  | 2,520   |   |   | *3,080  | 2,260   | 6,380   |         |
|   | 3.0 m                                | kg  |   | *5,300  | *5,300  | *3,940  | 3,790   | *3,480  | 2,450   |   |   | 2,990   | 1,950   | 6,910   |         |
|   | 1.5 m                                | kg  |   | *6,300  | *6,300  | *5,060  | 3,560   | 3,640   | 2,350   |   |   | 2,830   | 1,840   | 7,080   |         |
|   | 0 m                                  | kg  |   | *5,770  | *5,770  | 5,460   | 3,390   | 3,550   | 2,280   |   |   | 2,890   | 1,870   | 6,910   |         |
|   | -1.5 m                               | kg  | *4,400  | *4,400  | *9,280  | 6,130   | 5,390   | 3,330   | 3,520   | 2,250   |   |   | 3,220   | 2,070   | 6,390   |
|   | -3.0 m                               | kg  | *8,600  | *8,600  | *8,670  | 6,230   | 5,430   | 3,370   |   |   |   |   | 4,140   | 2,640   | 5,400   |
| with 700 mm shoe<br>2,100 kg CWT<br>Monoblock boom<br>4.6 m + Arm 3.0 m   | 6.0 m                                | kg  |   |   |   |   |   | *2,790  | 2,530   |   |   | *2,720  | 2,510   | 6,020   |         |
|   | 4.5 m                                | kg  |   |   |   |   |   | *2,760  | 2,540   |   |   | *2,550  | 1,970   | 6,920   |         |
|   | 3.0 m                                | kg  |   |   |   | *3,420  | *3,420  | *3,120  | 2,450   |   |   | *2,540  | 1,730   | 7,410   |         |
|   | 1.5 m                                | kg  |   | *7,290  | 6,570   | *4,600  | 3,570   | 3,630   | 2,340   | 2,580   | 1,660   | 2,540   | 1,630   | 7,570   |         |
|   | 0 m                                  | kg  |   | *6,230  | 6,130   | 5,440   | 3,370   | 3,520   | 2,240   |   |   | 2,580   | 1,650   | 7,410   |         |
|   | -1.5 m                               | kg  | *3,800  | *3,800  | *8,380  | 6,030   | 5,330   | 3,270   | 3,460   | 2,190   |   |   | 2,820   | 1,800   | 6,930   |
|   | -3.0 m                               | kg  | *7,040  | *7,040  | *9,060  | 6,080   | 5,330   | 3,270   | 3,490   | 2,210   |   |   | 3,460   | 2,200   | 6,030   |
| with 700 mm shoe<br>2,450 kg CWT<br>Monoblock boom<br>4.6 m + Arm 2.1 m   | 6.0 m                                | kg  |   |   |   | *3,330  | *3,330  |   |   |   |   | *3,510  | *3,510  | 4,880   |         |
|   | 4.5 m                                | kg  |   |   |   | *3,480  | *3,480  |   |   |   |   | *3,570  | 2,680   | 5,970   |         |
|   | 3.0 m                                | kg  |   | *6,230  | *6,230  | *4,330  | 4,000   | *3,760  | 2,610   |   |   | 3,450   | 2,290   | 6,530   |         |
|   | 1.5 m                                | kg  |   |   |   | *5,390  | 3,780   | 3,850   | 2,530   |   |   | 3,260   | 2,150   | 6,710   |         |
|   | 0 m                                  | kg  |   | *5,180  | *5,180  | 5,780   | 3,650   | 3,780   | 2,470   |   |   | 3,350   | 2,200   | 6,530   |         |
|   | -1.5 m                               | kg  | *4,800  | *4,800  | *9,460  | 6,640   | 5,740   | 3,610   |   |   |   |   | 3,790   | 2,470   | 5,970   |
|   | -3.0 m                               | kg  |   |   | *8,230  | 6,760   | *5,480  | 3,680   |   |   |   |   | *4,850  | 3,290   | 4,900   |
| with 700 mm shoe<br>2,450 kg CWT<br>Monoblock boom<br>4.6 m + Arm 2.5 m   | 6.0 m                                | kg  |   |   |   | *2,830  | *2,830  |   |   |   |   | *3,190  | 3,170   | 5,390   |         |
|   | 4.5 m                                | kg  |   |   |   | *3,070  | *3,070  | *3,180  | 2,680   |   |   | *3,080  | 2,410   | 6,380   |         |
|   | 3.0 m                                | kg  |   | *5,300  | *5,300  | *3,940  | *3,940  | *3,480  | 2,610   |   |   | *3,090  | 2,090   | 6,910   |         |
|   | 1.5 m                                | kg  |   | *6,300  | *6,300  | *5,060  | 3,780   | 3,830   | 2,510   |   |   | 2,990   | 1,970   | 7,080   |         |
|   | 0 m                                  | kg  |   | *5,770  | *5,770  | 5,750   | 3,620   | 3,750   | 2,430   |   |   | 3,060   | 2,000   | 6,910   |         |
|   | -1.5 m                               | kg  | *4,400  | *4,400  | *9,280  | 6,530   | 5,680   | 3,560   | 3,710   | 2,400   |   |   | 3,400   | 2,210   | 6,390   |
|   | -3.0 m                               | kg  | *8,600  | *8,600  | *8,670  | 6,630   | 5,730   | 3,590   |   |   |   |   | 4,370   | 2,820   | 5,400   |
| with 700 mm shoe<br>2,450 kg CWT<br>Monoblock boom<br>4.6 m + Arm 3.0 m   | 6.0 m                                | kg  |   |   |   |   |   | *2,790  | 2,690   |   |   | *2,720  | 2,670   | 6,020   |         |
|   | 4.5 m                                | kg  |   |   |   |   |   | *2,760  | 2,690   |   |   | *2,550  | 2,110   | 6,920   |         |
|   | 3.0 m                                | kg  |   |   |   | *3,420  | *3,420  | *3,120  | 2,610   |   |   | *2,540  | 1,850   | 7,410   |         |
|   | 1.5 m                                | kg  |   | *7,290  | 6,970   | *4,600  | 3,800   | *3,660  | 2,500   | 2,720   | 1,780   | *2,670  | 1,750   | 7,570   |         |
|   | 0 m                                  | kg  |   | *6,230  | *6,230  | *5,600  | 3,590   | 3,710   | 2,400   |   |   | 2,730   | 1,770   | 7,410   |         |
|   | -1.5 m                               | kg  | *3,800  | *3,800  | *8,380  | 6,430   | 5,620   | 3,490   | 3,660   | 2,340   |   |   | 2,980   | 1,930   | 6,930   |
|   | -3.0 m                               | kg  | *7,040  | *7,040  | *9,060  | 6,490   | 5,630   | 3,500   | 3,690   | 2,370   |   |   | 3,660   | 2,350   | 6,030   |

- Notes:
- Machine in "Fine Mode-F" (Power Boost), for lifting capacities.
  - The above loads are in compliance with SAE and ISO Hydraulic Excavator Lifting Capacity Standards.
  - Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.
  - Rated loads marked with an asterisk (\*) are limited by hydraulic capacity rather than tipping load.

## LIFTING CAPACITY (At the arm and without bucket)

Note: For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick fit from the following values.

### EC140B LCM

|  Across undercarriage<br> Along undercarriage | Lifting hook related to ground level | 1.5 m   |   | 3.0 m   |   | 4.5 m   |   | 6.0 m   |   | 7.5 m   |   | Max. reach  |   |         |
|---|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|   |                                      |  |  |  |  |  |  |  |  |  |  |  |  | Max. mm |
| with 700 mm shoe<br>2,450 kg CWT<br>2-piece boom<br>4.6 m + Arm 2.1 m   | 7.5 m kg                             |   |   |   |   |   |   |   |   |   |   | *5,360  | *5,360  | 2,900   |
|   | 6.0 m kg                             |   |   | *4,610  | *4,610  | *4,330  | 4,260   |   |   |   |   | *3,820  | 3,540   | 5,010   |
|   | 4.5 m kg                             |   |   | *5,230  | *5,230  | *4,460  | 4,210   | *3,920  | 2,660   |   |   | *3,430  | 2,600   | 6,070   |
|   | 3.0 m kg                             |   |   |   |   | *5,160  | 4,010   | 3,960   | 2,610   |   |   | *3,360  | 2,230   | 6,620   |
|   | 1.5 m kg                             |   |   |   |   | *5,920  | 3,780   | 3,860   | 2,520   |   |   | 3,200   | 2,100   | 6,800   |
|   | 0 m kg                               |   |   |   |   | 5,790   | 3,630   | 3,780   | 2,450   |   |   | 3,280   | 2,140   | 6,630   |
|   | -1.5 m kg                            |   |   | *8,320  | 6,600   | 5,740   | 3,590   | 3,780   | 2,450   |   |   | 3,710   | 2,410   | 6,080   |
| with 700 mm shoe<br>2,450 kg CWT<br>2-piece boom<br>4.6 m + Arm 2.5 m   | 7.5 m kg                             |   |   | *4,700  | *4,700  |   |   |   |   |   |   | *3,990  | *3,990  | 3,740   |
|   | 6.0 m kg                             |   |   | *3,990  | *3,990  | *3,890  | *3,890  |   |   |   |   | *3,080  | 3,050   | 5,530   |
|   | 4.5 m kg                             |   |   | *3,960  | *3,960  | *4,100  | *4,100  | *3,780  | 2,680   |   |   | *2,810  | 2,330   | 6,500   |
|   | 3.0 m kg                             |   |   | *6,830  | *6,830  | *4,830  | 4,040   | 3,960   | 2,610   |   |   | *2,750  | 2,030   | 7,020   |
|   | 1.5 m kg                             |   |   |   |   | *5,680  | 3,780   | 3,850   | 2,500   |   |   | *2,850  | 1,910   | 7,180   |
|   | 0 m kg                               |   |   | *5,230  | *5,230  | 5,760   | 3,600   | 3,750   | 2,420   |   |   | 2,990   | 1,940   | 7,020   |
|   | -1.5 m kg                            |   |   | *8,760  | 6,490   | 5,680   | 3,530   | 3,720   | 2,390   |   |   | 3,330   | 2,150   | 6,510   |
| with 700 mm shoe<br>2,450 kg CWT<br>2-piece boom<br>4.6 m + Arm 3.0 m   | 7.5 m kg                             |   |   | *3,750  | *3,750  | *3,450  | *3,450  |   |   |   |   | *3,100  | *3,100  | 4,640   |
|   | 6.0 m kg                             |   |   |   |   | *3,370  | *3,370  | *3,010  | 2,700   |   |   | *2,530  | *2,530  | 6,160   |
|   | 4.5 m kg                             |   |   | *2,850  | *2,850  | *3,600  | *3,600  | *3,430  | 2,710   |   |   | *2,330  | 2,040   | 7,050   |
|   | 3.0 m kg                             |   |   |   |   | *4,390  | 4,090   | *3,720  | 2,620   | *2,430  | 1,810   | *2,280  | 1,790   | 7,520   |
|   | 1.5 m kg                             |   |   |   |   | *5,330  | 3,800   | 3,840   | 2,490   | 2,730   | 1,770   | *2,350  | 1,700   | 7,680   |
|   | 0 m kg                               |   |   |   |   | 5,750   | 3,580   | 3,720   | 2,380   | 2,690   | 1,730   | *2,530  | 1,720   | 7,530   |
|   | -1.5 m kg                            | *3,460  | *3,460  | *7,910  | 6,390   | 5,620   | 3,470   | 3,660   | 2,330   |   |   | 2,920   | 1,880   | 7,050   |

- Notes:
1. Machine in "Fine Mode-F" (Power Boost), for lifting capacities.
  2. The above loads are in compliance with SAE and ISO Hydraulic Excavator Lifting 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.

## STANDARD EQUIPMENT

### Engine

Turbocharged, 4 stroke diesel engine with water cooling and direct injection  
2-stage air filter with indicator  
Air intake heater  
Electric engine shut-off  
Fuel filter and water separator  
Coolant filter  
Alternator, 80 A

### Electric / Electronic control system

Contronics:  
– Advanced mode control system  
– Self-diagnostic system  
Machine status indication  
Engine speed sensing power control  
"Power Max" mode system  
Automatic idling system  
One-touch power boost  
Safety stop/start function

Adjustable monitor  
Battery master switch  
Engine restart prevention circuit  
High capacity halogen lights:  
– Frame mounted 2  
– Boom mounted 2  
Batteries, 2 x 12 V/100 Ah  
Start motor, 24 V/4.8 kW

### Hydraulic system

Automatic hydraulic system:  
– Summation system  
– Boom priority  
– Arm priority  
– Swing priority  
Boom and arm regeneration valves  
Swing anti-rebound valves  
Boom and arm holding valves  
Multi-stage filtering system  
Cylinder cushions  
Cylinder contamination seals  
Auxiliary hydraulic valve  
Straight travel circuit

Automatic two-speed travel motors  
Hydraulic oil, ISO VG 46

### Superstructure

Access way with handrail  
Tool storage area  
Punched metal anti-slip plates  
Undercover (2.3 mm)

### Cab and interior

Hydraulic dampening cab mounts  
Adjustable operator seat and joystick control console  
Flexible antenna  
Hydraulic safety lock lever  
Cab, all-weather sound suppressed, includes:  
– Ashtray  
– Cup holder  
– Lighter  
– Tinted glass  
– Door locks  
– Floor mat

– Horn  
– Large storage area  
– Pull-up type front window  
– Removable lower windshield  
– Seat belt  
– Safety glass  
– Windshield wiper with intermittent feature  
– Stereo cassette radio  
Anti-vandalism kit assembly preparation  
Master ignition key

### Undercarriage

Hydraulic track adjusters  
Greased and sealed track chain  
Track guards  
Undercover (4.5 mm)

### Service

Spare parts

## ALTERNATIVE EQUIPMENT

### Engine

Block heater, 120 V / 240 V  
Fuel filler pump: 35 l/min,  
50 l/min with automatic shut-off

### Hydraulic system

Pilot-operated wrist control joysticks:  
– Semi-long joysticks  
– Control joystick, with 3 switches each  
– Control joystick, with 5 switches each

### Cab and interior

Seat:  
– Fabric seat  
– Fabric seat, with heater  
– Fabric seat, with heater and air suspension

### Track shoes

LC: 500 / 600 / 700 / 750 mm track shoes with triple grousers  
LCM: 600 / 700 / 800 / 900 mm track shoes with triple grousers

### Superstructure

Counterweight, 2,100 kg / 2,450 kg

### Digging equipment

Boom: 4.6 m monoblock  
4.6 m 2-piece  
Arm: 2.1 / 2.5 / 3.0 m

### Undercarriage

LC  
LCM

## OPTIONAL EQUIPMENT (Standard in certain markets)

### Engine

Diesel coolant heater  
Tropical cooling kit

### Electric

Extra lamps:  
– Cab-mounted 3, (front 2, rear 1)  
– Counterweight-mounted 1  
Overload warning device  
Rotating warning beacon  
Travel alarm

### Hydraulic system

Hose rupture valve: boom, arm  
Hydraulic piping  
– Hammer & shears:  
1 pump flow  
2 pump flow

Pump flow control for hammer & shears  
Additional return filter  
Extra piping for slope & rotator  
1 switch control  
2 switch control  
Pedal control  
– Slope & rotator  
– Grapple  
– Oil leak (drain) line  
– Quick fit piping  
Volvo hydraulic quick-fit, S6 size  
Hydraulic oil, ISO VG 32  
Hydraulic oil, ISO VG 68  
Hydraulic oil, biodegradable 32  
Hydraulic oil, biodegradable 46  
Joystick control pattern changer  
Boom floating function

### Cab and interior

Air-conditioner, manual  
Heater & air-conditioner, automatic  
Falling object guard (FOG)  
Cab mounted falling object protective structures (FOPS)  
Rain shield, front  
Sun shield, front, roof, rear  
Sunlight protection, roof (steel)  
Safety screen for front window  
Lower wiper  
Anti-vandalism kit  
Specific key

### Digging equipment

Long last bushing

### Superstructure

Undercover (heavy duty 4.5 mm)

### Undercarriage

Undercover (heavy duty 10 mm)  
Front dozer blade (for LC only)

### Service

Hand lamp  
Tool kit:  
– Full scale  
– Daily maintenance

*All products are not available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and designs without prior notice. The illustrations do not necessarily show the standard version of the machine.*

# VOLVO

Construction Equipment

Ref. No. 30 B 435 1640 English (for International region)  
Printed in Korea 2003.05-1 KOR  
Volvo, Seoul