

BID SUBMITTAL FORM
Alabama County Joint Bid Program
Heavy Equipment – Bid Item: TRACK-MOUNTED HYDRAULIC EXCAVATOR
Option B-1

Company Name: Cowin Equipment Company Inc.

Address: 4325 Northern Blvd
Montgomery Al 36110

Bid Submitted by: John Edwards
(Name of company representative)

Title: Governmental Sales Manager E-mail address: jedwards@cowin.com

Phone: 850-685-7055 Fax: 334-834-2272

By submitting this bid, we agree:

Initials

The equipment model number identified below meets the bid specs for this bid item

JE

That the bid price will be honored for all counties for the period from **January 1, 2025** to **December 31, 2025**.

JE

The equipment will be delivered at the bid price to all counties participating in the joint bid program

JE

The company representative listed above will be the contact person for purchasing this bid item under the joint bid program

JE

The bid is accompanied by a current catalog or model specification document for the model number identified below

JE

The bid is accompanied by a copy of the manufacturer's standard warranty as required in the bid specifications

JE

The bid includes the E-Verify documentation required by Alabama law

JE

If awarded the bid, a performance bond will be provided upon request

JE

The bid documents include the **Manufacturer's Suggested Retail Price Sheet (MSRP) for the Standard Machine**

JE

TRACK-MOUNTED HYDRAULIC EXCAVATOR Option B-1

Total Bid Price for Standard Machine: \$ 194,203.00
(Total Bid Price for Standard Machine Includes Freight Preparation, Delivery and Standard Warranty Costs) *

Freight Preparation and Delivery: \$ 1,750.00
(Included in Standard Machine Bid Price)

Manufacturer's Suggested Retail Price for Standard Machine: \$ 267,749.00

Equipment Model #: Volvo EC230F

Description: Hydraulic Excavator

Signature of company representative submitting bid: 

Title: Governmental Sales Manager

* **NOTE:** Award will be made based on the total cost of the **Standard Machine**. The total cost of the standard machine is to include the freight preparation, delivery and standard warranty cost. Freight preparation, delivery will be excluded from the total bid price of the standard machine in determining the percentage discount for any available options.

**BID SUBMITTAL FORM: OPTION COST SHEET
TRACK-MOUNTED HYDRAULIC EXCAVATOR
Option B-1**

By submitting this bid, we agree:

To offer any available options at the percent difference between the Manufacturer's Suggested Retail Price Sheet and the actual bid price on the Standard Machine*

JE

The bid documents include the Manufacturer's Suggested Retail Price Sheet (MSRP) with **any available Options** for the Standard Machine

JE

Equipment Model #: Volvo EC230 F

Description: Hydraulic Excavator

Signature of company representative submitting bid: John Edwards

Title: Governmental Sales Manager

***Note:** The percent difference between the **Manufacturer's Suggested Retail Price Sheet (MSRP)** for the standard machine as specified by these **Bid Specifications** and the actual price bid by the vendor will be calculated to determine the percentage discount to be applied to any available options. The bid price of the freight preparation, delivery cost shall be excluded in determining the percentage discount to be applied to available options. Any individual county may choose to add any available option to the standard machine at the percentage discount at the time of purchase.

**BID SPECIFICATIONS
FOR
TRACK-MOUNTED HYDRAULIC EXCAVATOR
Option B-1**

GENERAL

These specifications shall be construed as the minimum acceptable standards for a track mounted hydraulic excavator with long undercarriage. Should the manufacturer's current published data or specifications exceed these standards, the manufacturer's standards shall be considered minimum and shall be furnished. All integral parts not specifically mentioned in the scope of these specifications that are necessary to provide a complete working unit shall be furnished. Additionally, the machine offered for bid shall include all standard manufacturers' equipment. The excavator must be a new current production model and shall meet all EPA and other applicable standards at the time of manufacture.

Use of specific names and numbers in the specifications is not intended to restrict the bidder or any seller or manufacturer, but is intended solely for the purpose of indicating the type, size and quality of equipment considered best adapted to the uses of the counties participating in this joint bid.

BID SUBMITTAL FORM

Each bidder must submit his or her bid on the bid submittal form included in the invitation to bid package. All written warranties to be submitted shall be attached to the bid submittal form.

BID PRICE

The price bid shall include all destination charges, delivery charges, title fees, rebates, and all other applicable costs and refunds.

MANUALS

Each unit shall be provided with one (1) copy of the operator's manual, one [1] repair manual, and one (1) copy of the current parts manual. Units will not be accepted for delivery until the manuals as outlined above are received by the purchaser.

REPLACEMENT PARTS AVAILABILITY

Parts must be available for 5 years or 7,500 hours of use for the piece of equipment. If any replacement parts are not delivered within three (3) working days of an order being placed, the bidder will deliver an equivalent machine for the county to use at no cost to the county until such time as the parts are delivered to the county so it can affect repairs to its machine.

WARRANTY

Bidders shall submit a copy of the manufacturer's standard warranty. Warranty shall include service response time of maximum of 36 hours within notification by county.

Yes No

Page# _____

or

Attachment

WEIGHT

Minimum **49,000 lbs.**

Yes No
Page # 9

minimum **348** cubic inch diesel engine with
minimum **170 net** flywheel horsepower, **(6) Cylinder.**

Yes No
Page # 4

Engine must be designed and manufactured by machine manufacturer

Yes No
4

STARTING SYSTEM

Shall be equipped with a **24-volt** electrical system.

Yes No
Page # 4

UNDERCARRIAGE

Track length shall be **minimum 14.5'**

Yes No
Page # 6

Track shoe width shall be **minimum 31"**.

Yes No
Page # 18

Minimum eight (8) track rollers per side.

Yes No
Page # 4

Minimum two (2) carrier rollers per side.

Yes No
Page # 4

CAPACITIES

Fuel Tank Capacity – **85-gallon minimum** 83 Gallon

Yes No
Page # 5

Hydraulic Tank Capacity – **30 gallon minimum** 27 Gallon Tank, 57 Gallin Total

Yes No
Page # 5

Engine Coolant – **6.6-gallon minimum**

Yes No
Page # 5

BOOM AND STICK

One-piece boom with **minimum 18'** length

Yes No
Page # 7

Stick shall be a **minimum 9.5'** long

Yes No
Page # 7

DIMENSIONS

Reach at ground level – **30' minimum**

Yes No
Page # 8

Bucket breakout force – minimum **28,000 lbs.**

Yes No
Page # 8

Stick digging force – minimum **22,500 lbs.**

Yes No
Page # 8

HYDRAULICS

Hydraulic pump output shall be a minimum of **110 GPM**

Yes No
Page # 5

CAB

Enclosed ROPS cab with Air Conditioner and heater

Yes No
Page # 18

Factory installed air conditioning **Detailed as Climate Control**

Yes No
Page # 18

Defroster **Included with Climate Control**

Yes No
Page # 18

Bucket:

Standard with no bucket. Buckets will be considered optional attachments.

V O L V O



Volvo Excavators 49.0-52.3 t / 46,220-58,250 lb 173-175 hp

EC230

Volvo Construction Equipment

EC230

For general construction, road building or something more specialist, this is a versatile machine designed to help you achieve outstanding results



An edge in versatility

With its cutting-edge technology, outstanding efficiency and robust design, the EC230 effortlessly handles heavy loads, tackles tough terrain, and ensures exceptional productivity across a wide range of tasks and applications. Whether you're working in general construction, road building or something more specialist, the Volvo EC230 is a versatile and high performing machine designed to help you achieve outstanding results.



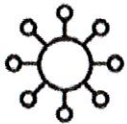
Operator comfort

- More precise controls
- Quieter cab
- Personalized settings for greater comfort
- ROPS cab as standard



Smart View with Obstacle Detection

- Increased safety onsite and for the operator
- Radar warns for items outside the screen
- HD screen
- Human identifying alarm separate from other obstacles



Serviceability

- Ground level access for service
- Long service intervals
- Grouped filters and lubrication points
- Quick and easy oil changes



Fuel Efficiency

- Up to 15% improvement
- Engine pump optimization with engine speeds as low as 1,600 rpm
- Smart MCV



Productivity

- Volvo Active Control
- Dig Assist with On-Board Weighing
- Electro-hydraulic system
- Boom/Swing & Boom/Travel priority functions

Volvo EC230 in detail

Engine

The latest generation, Volvo engine Tier 4f emissions compliant diesel engine fully meets the demands of the latest, emissions regulations. Featuring Volvo Advanced Combustion Technology (V-ACT), it is designed to deliver superior performance and fuel efficiency. The engine uses precise, high pressure fuel injectors, turbo charger and air-to-air intercooler, and electronic engine controls to optimize machine performance.

- **Air Filter:** 3-stage with precleaner

- **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 levels.

| Engine | Volvo | D6J |
|----------------------------|----------------------|--------------|
| Max power at | r/min (r/s) | 1,800 (30) |
| Net, ISO 9249/SAE J1349 | kW (hp) | 128 (172) |
| Gross, ISO 14396/SAE J1995 | kW (hp) | 129 (173) |
| Power output at | | |
| Operating max | r/min (r/s) | 1,600 (27) |
| Travel max | r/min (r/s) | 1,800 (30) |
| Max torque | Nm (ft lbf) | 849 (626) |
| at engine speed | r/min (r/s) | 1,350 (22.5) |
| No. of cylinders | | 6 |
| Displacement | l (in ³) | 5.7 (348) |
| Bore | mm (in) | 98 (3.86) |
| Stroke | mm (in) | 126 (4.96) |

Electrical System

High-capacity electrical system that is well protected. Waterproof double-lock harness plugs are used to secure corrosion-free connections. The main relays and solenoid valves are shielded to prevent damage. Contronics provides advanced monitoring of machine functions and important diagnostic information.

| | | |
|------------------|--------|--------------|
| Voltage | V | 24 |
| Batteries | V | 2 x 12 |
| Battery capacity | Ah | 140 |
| Alternator | V/A | 28 V / 180 A |
| Start motor | V - kW | 24 / 5.5 |

Undercarriage

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

| EC230F L | | |
|---------------------------------|---------|--|
| Track shoe | | 2 x 49 |
| Link pitch | mm (in) | 190 (7.5) |
| Shoe width | mm (in) | 600 (24) |
| Shoe width, triple grouser | mm (in) | 500 / 600 / 700 / 800 / 900 (20 / 24 / 28 / 32 / 36) |
| Shoe width, triple grouser (HD) | mm (in) | 600 (24) |
| Shoe width, double grouser | mm (in) | 700 (28) |
| Bottom rollers | | 2 x 8 |
| Top rollers | | 2 x 2 |

Swing system

The swing system uses an axial piston motors, driving a planetary gearbox for maximum torque. An automatic holding brake and antirebound valve are standard.

| | | |
|------------------|--------------|---------------|
| Max. slew speed | r/min | 11.5 |
| Max. slew torque | kNm (ft lbf) | 83.3 (61,430) |

Travel System

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 within the track frame.

| | | |
|--------------------------|-------------|--------------|
| Max. drawbar pull | kN (lbf) | 178 (40,016) |
| Max. travel speed (low) | km/h (mi/h) | 3.4 (2.1) |
| Max. travel speed (high) | km/h (mi/h) | 5.6 (3.5) |
| Gradeability | ° | 35 |

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 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 in the side door.

Integrated air-conditioning and heating system: The pressurized and filtered cab air is supplied by an automatically controlled fan. The air is distributed throughout the cab from 10 vents.

Ergonomic operator's seat: The adjustable seat and joystick console move independently to accommodate the operator. The seat has 12 different adjustments plus a seat belt for the operator's comfort and safety.

Sound Level

| | | |
|---|----|----|
| Sound level in cab according to ISO 6396 | | |
| L _{pA} | dB | 70 |
| External sound level according to ISO 6395, EU Noise Directive (2000/14/EC) | | |
| L _{WA} | dB | 99 |

Hydraulic system

The new electro-hydraulic system and new MCV (main control valve) use intelligent technology to control on-demand flow for high productivity, high digging capacity and excellent fuel consumption.

The following important functions are included in the system:

Summation system: Combines 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 performing deep excavations.

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

Swing priority: Gives priority to swing functions for faster 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.

Auto warm up: Hydraulic oil temperature can be set below the threshold that has been set.

Creep mode: Lower travel speed (10%~50% of 1st full speed) can be set by creep switch on.

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

Main pump: 2 x Variable displacement axial piston pumps

Maximum flow l/min (gal/min) 2 x 208 (2 x 55)

Pilot pump: Gear pump

Maximum flow l/min (gal/min) 1 x 16 (1 x 4)

Max. pressure

| | | |
|----------------|-----------|--------------------------------|
| Implement | MPa (psi) | 34.3 / 36.3 (4,975 / 5,265) |
| Travel circuit | MPa (psi) | 34.3 (4,975) |
| Slew circuit | MPa (psi) | 29.5 (4,279) |
| Pilot circuit | MPa (psi) | 3.9 (570) |

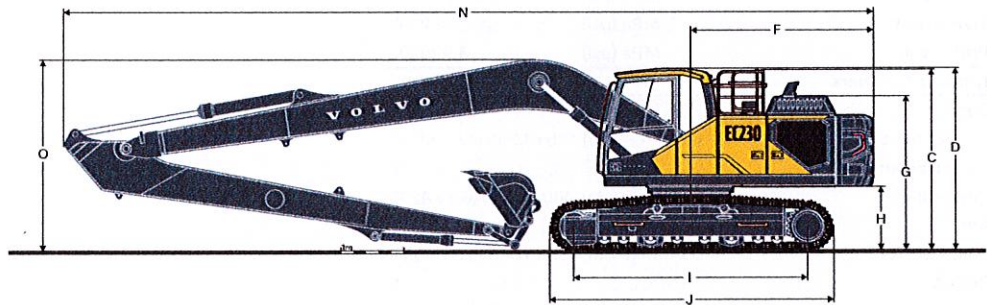
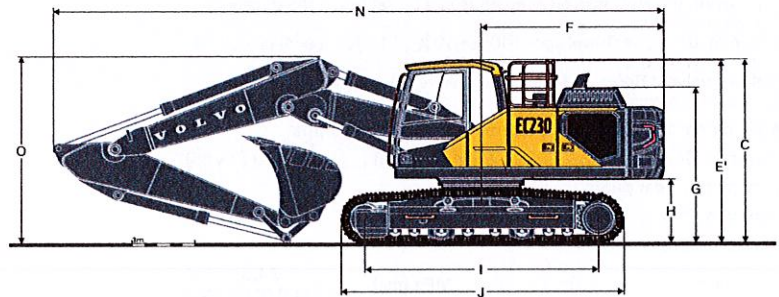
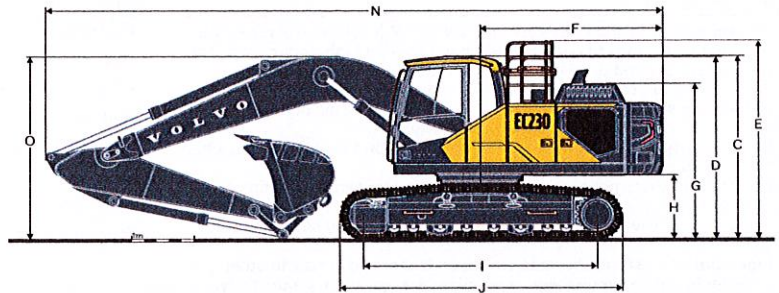
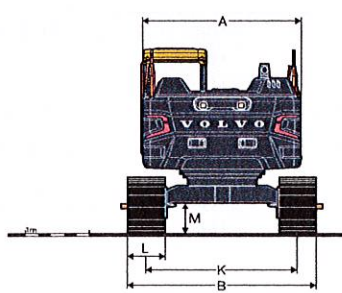
Hydraulic Cylinders

| | | |
|--------------------|-----------------|--------------------------|
| Boom | | 2 |
| Bore x Stroke | ø x mm (ø x in) | 125 x 1,235 (4.9 x 48.6) |
| 2 piece boom | | 1 |
| Bore x Stroke | ø x mm (ø x in) | 160 x 1,070 (6.3 x 42.1) |
| Arm | | 1 |
| Bore x Stroke | ø x mm (ø x in) | 135 x 1,540 (5.3 x 60.6) |
| Bucket | | 1 |
| Bore x Stroke | ø x mm (ø x in) | 120 x 1,065 (4.7 x 41.9) |
| Bucket for LR boom | | 1 |
| Bore x Stroke | ø x mm (ø x in) | 100 x 865 (3.9 x 34.1) |

Service Refill

| | | |
|-------------------------|---------|-----------------|
| Fuel tank | l (gal) | 315 (83) |
| DEF/AdBlue® tank | l (gal) | 27 (7) |
| Hydraulic system, total | l (gal) | 215 (57) |
| Hydraulic tank | l (gal) | 98 (26) |
| Engine oil | l (gal) | 25 (7) |
| Engine coolant | l (gal) | 35 (9) |
| Slew reduction unit | l (gal) | 4 (1) |
| Travel reduction unit | l (gal) | 2 x 3.5 (2 x 1) |

Specifications

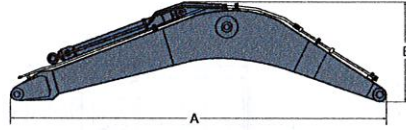


DIMENSIONS

| Boom | Unit | | EC230F L | | | | | | | EC230F LR | | |
|---|------|-------|----------------------------|-------|-------|-------|-------|--------|-------|--------------|--------|-------|
| | m | ft in | 5.7 (18'8") / 5.57 (18'3") | | | | | | | 8.85 (29'0") | | |
| Arm | m | ft in | 2.0 | 6'7" | 2.5 | 8'2" | 2.9 | 9'6" | 3.5 | 11'6" | 6.25 | 20'6" |
| A. Overall width of upper structure | mm | ft in | 2,500 | 8'2" | 2,500 | 8'2" | 2,500 | 8'2" | 2,500 | 8'2" | 2,500 | 8'2" |
| B. Overall width | mm | ft in | 2,990 | 9'10" | 2,990 | 9'10" | 2,990 | 9'10" | 2,990 | 9'10" | 3,190 | 10'6" |
| C. Overall height of cab | mm | ft in | 2,900 | 9'6" | 2,900 | 9'6" | 2,900 | 9'6" | 2,900 | 9'6" | 2,900 | 9'6" |
| D. Overall height of handrail | mm | ft in | 2,875 | 9'5" | 2,875 | 9'5" | 2,875 | 9'5" | 2,875 | 9'5" | 2,875 | 9'5" |
| E. Overall height of guardrail | mm | ft in | 3,120 | 10'3" | 3,120 | 10'3" | 3,120 | 10'3" | 3,120 | 10'3" | 3,120 | 10'3" |
| F. Tail swing radius | mm | ft in | 2,870 | 9'5" | 2,870 | 9'5" | 2,870 | 9'5" | 2,870 | 9'5" | 2,870 | 9'5" |
| G. Overall height of engine hood | mm | ft in | 2,450 | 8'0" | 2,450 | 8'0" | 2,450 | 8'0" | 2,450 | 8'0" | 2,450 | 8'0" |
| H. Counterweight clearance * | mm | ft in | 1,005 | 3'4" | 1,005 | 3'4" | 1,005 | 3'4" | 1,005 | 3'4" | 1,005 | 3'4" |
| I. Tumbler length | mm | ft in | 3,660 | 12'0" | 3,660 | 12'0" | 3,660 | 12'0" | 3,660 | 12'0" | 3,660 | 12'0" |
| J. Track length | mm | ft in | 4,460 | 14'8" | 4,460 | 14'8" | 4,460 | 14'8" | 4,460 | 14'8" | 4,460 | 14'8" |
| K. Track gauge | mm | ft in | 2,390 | 7'10" | 2,390 | 7'10" | 2,390 | 7'10" | 2,390 | 7'10" | 2,390 | 7'10" |
| L. Shoe width | mm | ft in | 600 | 2'0" | 600 | 2'0" | 600 | 2'0" | 600 | 2'0" | 800 | 2'7" |
| M. Min. ground clearance * | mm | ft in | 455 | 1'6" | 455 | 1'6" | 455 | 1'6" | 455 | 1'6" | 455 | 1'6" |
| N. Overall length | mm | ft in | 9,830 | 32'3" | 9,770 | 32'1" | 9,715 | 31'10" | 9,765 | 32'0" | 12,900 | 42'4" |
| N ¹ . Overall length | mm | ft in | 9,675 | 31'9" | 9,630 | 31'7" | 9,575 | 31'5" | 9,595 | 31'6" | | |
| O. Overall height of boom | mm | ft in | 3,155 | 10'4" | 3,175 | 10'5" | 3,035 | 9'11" | 3,170 | 10'5" | 3,090 | 10'2" |
| O ¹ . Overall height of boom | mm | ft in | 3,065 | 10'1" | 3,050 | 10'0" | 2,955 | 9'8" | 3,285 | 10'9" | | |

* Without shoe grouser

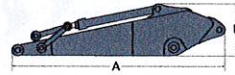
¹ 2-piece boom



DIMENSIONS

| Description | Unit | | Boom | | | | | | | |
|-------------|-----------|-------|----------------|-------|----------------|-------|----------------------|-------|-----------------|-------|
| | m (ft in) | | 5.7 (18'8") GP | | 5.7 (18'8") HD | | 5.57 (18'3") 2-piece | | 8.85 (29'0") LR | |
| A. Length | mm | ft in | 5,915 | 19'5" | 5,915 | 19'5" | 5,785 | 19'0" | 9,065 | 29'9" |
| B. Height | mm | ft in | 1,600 | 5'3" | 1,600 | 5'3" | 1,420 | 4'8" | 1,460 | 4'9" |
| Width | mm | ft in | 670 | 2'2" | 670 | 2'2" | 670 | 2'2" | 670 | 2'2" |
| Weight | kg | lb | 2,010 | 4,430 | 2,155 | 4,750 | 2,640 | 5,820 | 2,560 | 5,640 |

* Includes cylinder, piping and pin, excludes boom cyl. Pin

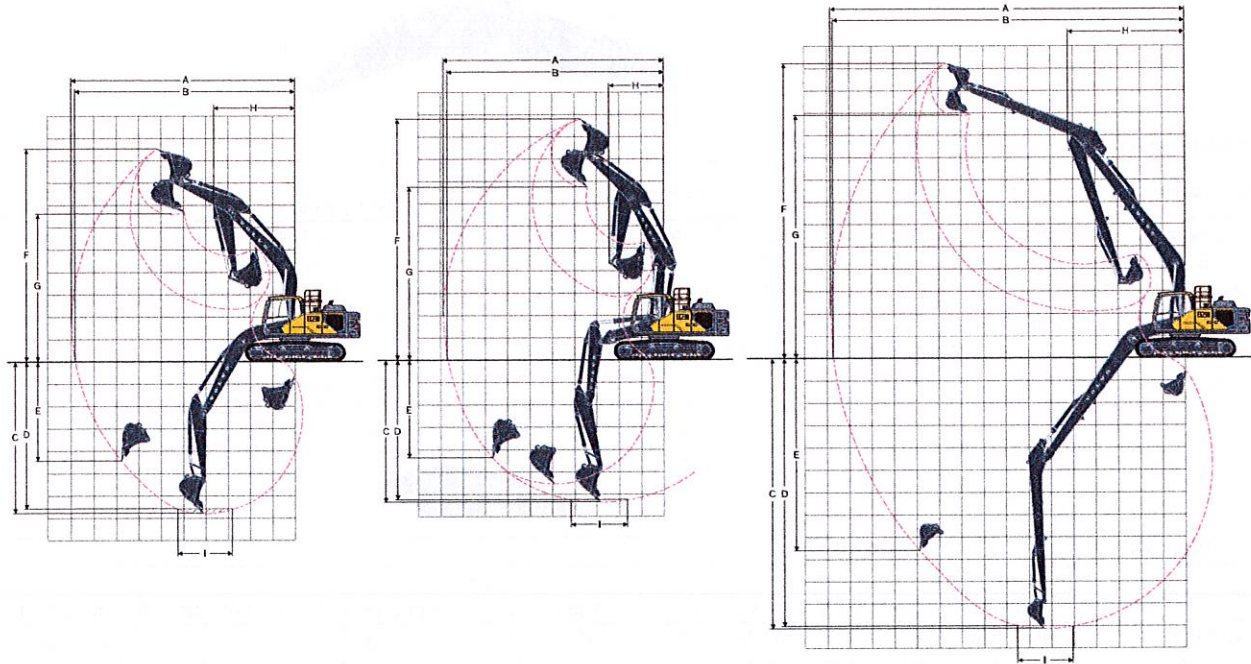


DIMENSIONS

| Description | Unit | | Arm | | | | | | | | | | | |
|-------------|-----------|-------|---------------|-------|---------------|-------|---------------|-------|---------------|-------|----------------|--------|-----------------|-------|
| | m (ft in) | | 2.0 (6'7") ME | | 2.5 (8'2") HD | | 2.9 (9'6") GP | | 2.9 (9'6") HD | | 3.5 (11'6") GP | | 6.25 (20'6") LR | |
| A. Length | mm | ft in | 3,070 | 10'1" | 3,530 | 11'7" | 3,895 | 12'9" | 3,895 | 12'9" | 4,540 | 14'11" | 7,310 | 24'0" |
| B. Height | mm | ft in | 980 | 3'3" | 865 | 2'10" | 865 | 2'10" | 865 | 2'10" | 865 | 2'10" | 945 | 3'1" |
| Width | mm | ft in | 440 | 1'5" | 440 | 1'5" | 440 | 1'5" | 440 | 1'5" | 440 | 1'5" | 385 | 1'3" |
| Weight | kg | lb | 1,080 | 2,380 | 1,135 | 2,500 | 1,140 | 2,510 | 1,190 | 2,620 | 1,165 | 2,570 | 1,255 | 2,770 |

* Includes cylinder, linkage and pin

Specifications



WORKING RANGES WITH DIRECT FIT BUCKET

| Description | Unit | EC230F L | | | | | | | | | | | | | | | | EC230F LR | |
|---|-----------|-------------|-------------|--------------|---------------|---------------|--------------|--------------|---------------|---------------|------|-----|------|-----|------|-----|-------|--------------|-------|
| | | 5.7 (18'8") | | | | | | | | 5.57 (18'3") | | | | | | | | 8.85 (29'0") | |
| Boom | m (ft in) | | | | | | | | | | | | | | | | | | |
| Arm | m (ft in) | 2.0 | 6'7" | 2.5 | 8'2" | 2.9 | 9'6" | 3.5 | 11'6" | 2.0 | 6'7" | 2.5 | 8'2" | 2.9 | 9'6" | 3.5 | 11'6" | 6.25 | 20'6" |
| A. Max. digging reach | mm ft in | 9,145 30'0" | 9,605 31'6" | 9,995 32'10" | 10,450 34'3" | 9,040 29'8" | 9,505 31'2" | 9,900 32'6" | 10,365 34'0" | 15,805 51'10" | | | | | | | | | |
| B. Max. digging reach on ground | mm ft in | 8,975 29'5" | 9,445 31'0" | 9,835 32'3" | 10,305 33'10" | 8,870 29'1" | 9,345 30'8" | 9,740 31'11" | 10,215 33'6" | 15,705 51'6" | | | | | | | | | |
| C. Max. digging depth | mm ft in | 5,925 19'5" | 6,425 21'1" | 6,825 22'5" | 7,425 24'4" | 5,505 18'1" | 5,995 19'8" | 6,400 21'0" | 6,945 22'9" | 12,140 39'10" | | | | | | | | | |
| D. Max. digging depth (l=2.44 m / 8'0" level) | mm ft in | 5,670 18'7" | 6,205 20'4" | 6,635 21'9" | 7,235 23'9" | 5,385 17'8" | 5,885 19'4" | 6,295 20'8" | 6,845 22'5" | 12,035 39'6" | | | | | | | | | |
| E. Max. vertical wall digging depth | mm ft in | 4,315 14'2" | 5,070 16'8" | 5,535 18'2" | 5,885 19'4" | 4,125 13'6" | 4,735 15'6" | 5,150 16'11" | 5,645 18'6" | 10,860 35'8" | | | | | | | | | |
| F. Max. cutting height | mm ft in | 8,925 29'3" | 9,205 30'2" | 9,445 31'0" | 9,450 31'0" | 10,015 32'10" | 10,395 34'1" | 10,715 35'2" | 10,930 35'10" | 13,260 43'6" | | | | | | | | | |
| G. Max. dumping height | mm ft in | 6,090 20'0" | 6,330 20'9" | 6,555 21'6" | 6,600 21'8" | 7,005 23'0" | 7,365 24'2" | 7,680 25'2" | 7,910 25'11" | 10,905 35'9" | | | | | | | | | |
| H. Min. front swing radius | mm ft in | 3,660 12'0" | 3,670 12'0" | 3,645 12'0" | 3,630 11'11" | 2,895 9'6" | 2,735 8'12" | 2,465 8'1" | 2,740 8'12" | 5,205 17'1" | | | | | | | | | |

DIGGING FORCES WITH DIRECT FIT BUCKET

| Bucket radius | | mm | ft in | 1,528 | 5'0" | 1,528 | 5'0" | 1,528 | 5'0" | 1,528 | 5'0" | 1,528 | 5'0" | 1,528 | 5'0" | 1,528 | 5'0" | 1,528 | 5'0" | 1,250 | 4'1" | | |
|-------------------------|-------------|-----------|-------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--------|--------|
| Breakout force (bucket) | Normal | SAE J1179 | kN lb | 146 32,820 | 125 28,100 | 125 28,100 | 125 28,100 | 125 28,100 | 146 32,820 | 125 28,100 | 125 28,100 | 125 28,100 | 125 28,100 | 125 28,100 | 125 28,100 | 125 28,100 | 125 28,100 | 125 28,100 | 125 28,100 | 68 | 15,290 | | |
| | Power boost | SAE J1179 | kN lb | 154 34,620 | 132 29,670 | 132 29,670 | 132 29,670 | 132 29,670 | 154 34,620 | 132 29,670 | 132 29,670 | 132 29,670 | 132 29,670 | 132 29,670 | 132 29,670 | 132 29,670 | 132 29,670 | 132 29,670 | 132 29,670 | 132 29,670 | - | - | |
| | Normal | ISO 6015 | kN lb | 165 37,090 | 141 31,700 | 141 31,700 | 141 31,700 | 141 31,700 | 165 37,090 | 141 31,700 | 141 31,700 | 141 31,700 | 141 31,700 | 141 31,700 | 141 31,700 | 141 31,700 | 141 31,700 | 141 31,700 | 141 31,700 | 141 31,700 | 77 | 17,310 | |
| | Power boost | ISO 6015 | kN lb | 174 39,120 | 149 33,500 | 149 33,500 | 149 33,500 | 149 33,500 | 174 39,120 | 149 33,500 | 149 33,500 | 149 33,500 | 149 33,500 | 149 33,500 | 149 33,500 | 149 33,500 | 149 33,500 | 149 33,500 | 149 33,500 | 149 33,500 | 149 33,500 | - | - |
| Tearout force (arm) | Normal | SAE J1179 | kN lb | 144 32,370 | 117 26,300 | 101 22,710 | 92 20,680 | 144 32,370 | 117 26,300 | 101 22,710 | 92 20,680 | 144 32,370 | 117 26,300 | 101 22,710 | 92 20,680 | 144 32,370 | 117 26,300 | 101 22,710 | 92 20,680 | 44 | 9,890 | | |
| | Power boost | SAE J1179 | kN lb | 153 34,400 | 124 27,880 | 107 24,050 | 97 21,810 | 153 34,400 | 124 27,880 | 107 24,050 | 97 21,810 | 153 34,400 | 124 27,880 | 107 24,050 | 97 21,810 | 153 34,400 | 124 27,880 | 107 24,050 | 97 21,810 | 153 34,400 | 124 27,880 | - | - |
| | Normal | ISO 6015 | kN lb | 149 33,500 | 121 27,200 | 104 23,380 | 94 21,130 | 149 33,500 | 121 27,200 | 104 23,380 | 94 21,130 | 149 33,500 | 121 27,200 | 104 23,380 | 94 21,130 | 149 33,500 | 121 27,200 | 104 23,380 | 94 21,130 | 149 33,500 | 121 27,200 | 45 | 10,120 |
| | Power boost | ISO 6015 | kN lb | 158 35,520 | 128 28,780 | 110 24,730 | 99 22,260 | 158 35,520 | 128 28,780 | 110 24,730 | 99 22,260 | 158 35,520 | 128 28,780 | 110 24,730 | 99 22,260 | 158 35,520 | 128 28,780 | 110 24,730 | 99 22,260 | 158 35,520 | 128 28,780 | - | - |
| Rotation angle, bucket | | ° | | 166 | 175 | 175 | 175 | 166 | 175 | 175 | 175 | 166 | 175 | 175 | 175 | 166 | 175 | 175 | 175 | 175 | 178 | | |

GROUND PRESSURE

| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | | Operating weight | | Ground pressure | | Overall width | | |
|---|------------|---------|------------------|--------|-----------------|-------|---------------|--------|------------------|--------|-----------------|-------|--|-------|--|
| | mm | in | kg | lb | kPa | psi | mm | ft in | kg | lb | kPa | psi | mm | ft in | |
| Triple grouser | 500 | 20 | 23,090 | 50,910 | 57.9 | 8.4 | 2,890 | 9'6" | 23,090 | 50,910 | 57.9 | 8.4 | 2,890 | 9'6" | |
| | 600 | 24 | 23,350 | 51,490 | 48.0 | 7.0 | 2,990 | 9'10" | 23,350 | 51,490 | 48.0 | 7.0 | 2,990 | 9'10" | |
| | 600 (HD) | 24 (HD) | 23,480 | 51,770 | 49.0 | 7.1 | 2,990 | 9'10" | 23,480 | 51,770 | 49.0 | 7.1 | 2,990 | 9'10" | |
| | 700 | 28 | 23,760 | 52,390 | 42.2 | 6.1 | 3,090 | 10'2" | 23,770 | 52,410 | 42.2 | 6.1 | 3,090 | 10'2" | |
| | 800 | 32 | 24,050 | 53,030 | 37.3 | 5.4 | 3,190 | 10'6" | 24,050 | 53,030 | 37.3 | 5.4 | 3,190 | 10'6" | |
| 900 | 36 | 24,330 | 53,650 | 33.3 | 4.8 | 3,290 | 10'10" | 24,330 | 53,650 | 33.3 | 4.8 | 3,290 | 10'10" | | |
| Single grouser | 600 | 24 | 23,550 | 51,930 | 49.0 | 7.1 | 2,990 | 9'10" | 23,560 | 51,950 | 49.0 | 7.1 | 2,990 | 9'10" | |
| Double grouser | 700 | 28 | 24,070 | 53,070 | 43.1 | 6.3 | 3,090 | 10'2" | 24,070 | 53,070 | 43.1 | 6.3 | 3,090 | 10'2" | |
| EC230F L, 5.7 m / 18'8" GP boom, 2.5 m / 8'2" HD arm, 1,036 kg / 2,280 lb bucket, 4,600 kg / 10,140 lb counterweight | | | | | | | | | | | | | EC230F L, 5.7 m / 18'8" GP boom, 2.9 m / 9'6" GP arm, 1,036 kg / 2,280 lb bucket, 4,600 kg / 10,140 lb counterweight | | |
| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | | Operating weight | | Ground pressure | | Overall width | | |
| | mm | in | kg | lb | kPa | psi | mm | ft in | kg | lb | kPa | psi | mm | ft in | |
| Triple grouser | 500 | 20 | 23,140 | 51,020 | 57.9 | 8.4 | 2,890 | 9'6" | 23,220 | 51,200 | 57.9 | 8.4 | 2,890 | 9'6" | |
| | 600 | 24 | 23,400 | 51,600 | 48.0 | 7.0 | 2,990 | 9'10" | 23,480 | 51,770 | 49.0 | 7.1 | 2,990 | 9'10" | |
| | 600 (HD) | 24 (HD) | 23,530 | 51,880 | 49.0 | 7.1 | 2,990 | 9'10" | 23,610 | 52,060 | 49.0 | 7.1 | 2,990 | 9'10" | |
| | 700 | 28 | 23,820 | 52,520 | 42.2 | 6.1 | 3,090 | 10'2" | 23,890 | 52,680 | 42.2 | 6.1 | 3,090 | 10'2" | |
| | 800 | 32 | 24,100 | 53,140 | 37.3 | 5.4 | 3,190 | 10'6" | 24,180 | 53,320 | 37.3 | 5.4 | 3,190 | 10'6" | |
| 900 | 36 | 24,380 | 53,760 | 33.3 | 4.8 | 3,290 | 10'10" | 24,460 | 53,930 | 33.3 | 4.8 | 3,290 | 10'10" | | |
| Single grouser | 600 | 24 | 23,610 | 52,060 | 49.0 | 7.1 | 2,990 | 9'10" | 23,680 | 52,210 | 49.0 | 7.1 | 2,990 | 9'10" | |
| Double grouser | 700 | 28 | 24,120 | 53,180 | 43.1 | 6.3 | 3,090 | 10'2" | 24,200 | 53,360 | 43.1 | 6.3 | 3,090 | 10'2" | |
| EC230F L, 5.7 m / 18'8" GP boom, 2.9 m / 9'6" HD arm, 1,036 kg / 2,280 lb bucket, 4,600 kg / 10,140 lb counterweight | | | | | | | | | | | | | EC230F L, 5.7 m / 18'8" GP boom, 3.5 m / 11'6" GP arm, 1,036 kg / 2,280 lb bucket, 4,600 kg / 10,140 lb counterweight | | |
| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | | Operating weight | | Ground pressure | | Overall width | | |
| | mm | in | kg | lb | kPa | psi | mm | ft in | kg | lb | kPa | psi | mm | ft in | |
| Triple grouser | 500 | 20 | 23,210 | 51,180 | 57.9 | 8.4 | 2,890 | 9'6" | 23,210 | 51,180 | 57.9 | 8.4 | 2,890 | 9'6" | |
| | 600 | 24 | 23,470 | 51,750 | 49.0 | 7.1 | 2,990 | 9'10" | 23,470 | 51,750 | 49.0 | 7.1 | 2,990 | 9'10" | |
| | 600 (HD) | 24 (HD) | 23,600 | 52,040 | 49.0 | 7.1 | 2,990 | 9'10" | 23,600 | 52,040 | 49.0 | 7.1 | 2,990 | 9'10" | |
| | 700 | 28 | 23,890 | 52,680 | 42.2 | 6.1 | 3,090 | 10'2" | 23,880 | 52,660 | 42.2 | 6.1 | 3,090 | 10'2" | |
| | 800 | 32 | 24,170 | 53,290 | 37.3 | 5.4 | 3,190 | 10'6" | 24,160 | 53,270 | 37.3 | 5.4 | 3,190 | 10'6" | |
| 900 | 36 | 24,450 | 53,910 | 33.3 | 4.8 | 3,290 | 10'10" | 24,450 | 53,910 | 33.3 | 4.8 | 3,290 | 10'10" | | |
| Single grouser | 600 | 24 | 23,680 | 52,210 | 49.0 | 7.1 | 2,990 | 9'10" | 23,670 | 52,190 | 49.0 | 7.1 | 2,990 | 9'10" | |
| Double grouser | 700 | 28 | 24,190 | 53,340 | 43.1 | 6.3 | 3,090 | 10'2" | 24,190 | 53,340 | 43.1 | 6.3 | 3,090 | 10'2" | |
| EC230F L, 5.7 m / 18'8" HD boom, 2.0 m / 6'7" ME arm, 1,036 kg / 2,280 lb bucket, 4,600 kg / 10,140 lb counterweight | | | | | | | | | | | | | EC230F L, 5.7 m / 18'8" HD boom, 2.5 m / 8'2" HD arm, 1,036 kg / 2,280 lb bucket, 4,600 kg / 10,140 lb counterweight | | |
| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | | Operating weight | | Ground pressure | | Overall width | | |
| | mm | in | kg | lb | kPa | psi | mm | ft in | kg | lb | kPa | psi | mm | ft in | |
| Triple grouser | 500 | 20 | 23,210 | 51,180 | 57.9 | 8.4 | 2,890 | 9'6" | 23,260 | 51,290 | 57.9 | 8.4 | 2,890 | 9'6" | |
| | 600 | 24 | 23,470 | 51,750 | 49.0 | 7.1 | 2,990 | 9'10" | 23,520 | 51,860 | 49.0 | 7.1 | 2,990 | 9'10" | |
| | 600 (HD) | 24 (HD) | 23,600 | 52,040 | 49.0 | 7.1 | 2,990 | 9'10" | 23,650 | 52,150 | 49.0 | 7.1 | 2,990 | 9'10" | |
| | 700 | 28 | 23,890 | 52,680 | 42.2 | 6.1 | 3,090 | 10'2" | 23,940 | 52,790 | 42.2 | 6.1 | 3,090 | 10'2" | |
| | 800 | 32 | 24,170 | 53,290 | 37.3 | 5.4 | 3,190 | 10'6" | 24,220 | 53,410 | 37.3 | 5.4 | 3,190 | 10'6" | |
| 900 | 36 | 24,450 | 53,910 | 33.3 | 4.8 | 3,290 | 10'10" | 24,500 | 54,020 | 33.3 | 4.8 | 3,290 | 10'10" | | |
| Single grouser | 600 | 24 | 23,680 | 52,210 | 49.0 | 7.1 | 2,990 | 9'10" | 23,730 | 52,320 | 49.0 | 7.1 | 2,990 | 9'10" | |
| Double grouser | 700 | 28 | 24,190 | 53,340 | 43.1 | 6.3 | 3,090 | 10'2" | 24,240 | 53,450 | 43.1 | 6.3 | 3,090 | 10'2" | |
| EC230F L, 5.7 m / 18'8" HD boom, 2.9 m / 9'6" GP arm, 1,036 kg / 2,280 lb bucket, 4,600 kg / 10,140 lb counterweight | | | | | | | | | | | | | EC230F L, 5.7 m / 18'8" HD boom, 2.9 m / 9'6" HD arm, 1,036 kg / 2,280 lb bucket, 4,600 kg / 10,140 lb counterweight | | |

Specifications

| GROUND PRESSURE | | | | | | | | | | | | | | |
|-----------------|------------|---------|---|--------|-----------------|-----|---------------|--------|--|--------|-----------------|-----|---------------|--------|
| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | | Operating weight | | Ground pressure | | Overall width | |
| | mm | in | kg | lb | kPa | psi | mm | ft in | kg | lb | kPa | psi | mm | ft in |
| Triple grouser | 500 | 20 | 23,340 | 51,460 | 57.9 | 8.4 | 2,890 | 9'6" | 23,720 | 52,300 | 58.8 | 8.5 | 2,890 | 9'6" |
| | 600 | 24 | 23,600 | 52,040 | 49.0 | 7.1 | 2,990 | 9'10" | 23,980 | 52,880 | 50.0 | 7.3 | 2,990 | 9'10" |
| | 600 (HD) | 24 (HD) | 23,730 | 52,320 | 49.0 | 7.1 | 2,990 | 9'10" | 24,120 | 53,180 | 50.0 | 7.3 | 2,990 | 9'10" |
| | 700 | 28 | 24,010 | 52,940 | 43.1 | 6.3 | 3,090 | 10'2" | 24,400 | 53,800 | 43.1 | 6.3 | 3,090 | 10'2" |
| | 800 | 32 | 24,290 | 53,560 | 38.2 | 5.5 | 3,190 | 10'6" | 24,680 | 54,420 | 38.2 | 5.5 | 3,190 | 10'6" |
| | 900 | 36 | 24,580 | 54,200 | 33.3 | 4.8 | 3,290 | 10'10" | 24,960 | 55,040 | 34.3 | 5.0 | 3,290 | 10'10" |
| Single grouser | 600 | 24 | 23,800 | 52,480 | 49.0 | 7.1 | 2,990 | 9'10" | 24,190 | 53,340 | 50.0 | 7.3 | 2,990 | 9'10" |
| Double grouser | 700 | 28 | 24,320 | 53,630 | 43.1 | 6.3 | 3,090 | 10'2" | 24,710 | 54,490 | 44.1 | 6.4 | 3,090 | 10'2" |
| | | | EC230F L, 5.7 m / 18'8" HD boom, 3.5 m / 11'6" GP arm, 1,036 kg / 2,280 lb bucket, 4,600 kg / 10,140 lb counterweight | | | | | | EC230F L, 5.57 m / 18'3" 2-pieces boom, 2.9 m / 9'6" GP arm, 1,036 kg / 2,280 lb bucket, 4,600 kg / 10,140 lb counterweight | | | | | |
| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | | Operating weight | | Ground pressure | | Overall width | |
| | mm | in | kg | lb | kPa | psi | mm | ft in | kg | lb | kPa | psi | mm | ft in |
| Triple grouser | 500 | 20 | 23,770 | 52,410 | 58.8 | 8.5 | 2,890 | 9'6" | 23,850 | 52,590 | 59.8 | 8.7 | 2,890 | 9'6" |
| | 600 | 24 | 24,030 | 52,990 | 50.0 | 7.3 | 2,990 | 9'10" | 24,110 | 53,160 | 50.0 | 7.3 | 2,990 | 9'10" |
| | 600 (HD) | 24 (HD) | 24,170 | 53,290 | 50.0 | 7.3 | 2,990 | 9'10" | 24,240 | 53,450 | 50.0 | 7.3 | 2,990 | 9'10" |
| | 700 | 28 | 24,450 | 53,910 | 43.1 | 6.3 | 3,090 | 10'2" | 24,530 | 54,090 | 43.1 | 6.3 | 3,090 | 10'2" |
| | 800 | 32 | 24,730 | 54,530 | 38.2 | 5.5 | 3,190 | 10'6" | 24,810 | 54,710 | 38.2 | 5.5 | 3,190 | 10'6" |
| | 900 | 36 | 25,010 | 55,150 | 34.3 | 5.0 | 3,290 | 10'10" | 25,090 | 55,320 | 34.3 | 5.0 | 3,290 | 10'10" |
| Single grouser | 600 | 24 | 24,240 | 53,450 | 50.0 | 7.3 | 2,990 | 9'10" | 24,320 | 53,630 | 50.0 | 7.3 | 2,990 | 9'10" |
| Double grouser | 700 | 28 | 24,760 | 54,600 | 44.1 | 6.4 | 3,090 | 10'2" | 24,830 | 54,750 | 44.1 | 6.4 | 3,090 | 10'2" |
| | | | EC230F L, 5.57 m / 18'3" 2-pieces boom, 2.9 m / 9'6" HD arm, 1,036 kg / 2,280 lb bucket, 4,600 kg / 10,140 lb counterweight | | | | | | EC230F L, 5.57 m / 18'3" 2-pieces boom, 3.5 m / 11'6" GP arm, 1,036 kg / 2,280 lb bucket, 4,600 kg / 10,140 lb counterweight | | | | | |
| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | | Operating weight | | Ground pressure | | Overall width | |
| | mm | in | kg | lb | kPa | psi | mm | ft in | kg | lb | kPa | psi | mm | ft in |
| Triple grouser | 500 | 20 | 23,960 | 52,830 | 59.8 | 8.7 | 2,890 | 9'6" | 23,970 | 52,850 | 59.8 | 8.7 | 2,890 | 9'6" |
| | 600 | 24 | 24,220 | 53,410 | 50.0 | 7.3 | 2,990 | 9'10" | 24,220 | 53,410 | 50.0 | 7.3 | 2,990 | 9'10" |
| | 600 (HD) | 24 (HD) | 24,390 | 53,780 | 51.0 | 7.4 | 2,990 | 9'10" | 24,390 | 53,780 | 51.0 | 7.4 | 2,990 | 9'10" |
| | 700 | 28 | 24,560 | 54,150 | 44.1 | 6.4 | 3,090 | 10'2" | 24,570 | 54,180 | 44.1 | 6.4 | 3,090 | 10'2" |
| | 800 | 32 | 24,960 | 55,040 | 39.2 | 5.7 | 3,190 | 10'6" | 24,970 | 55,060 | 39.2 | 5.7 | 3,190 | 10'6" |
| | 900 | 36 | 25,250 | 55,680 | 35.3 | 5.1 | 3,290 | 10'10" | 25,250 | 55,680 | 35.3 | 5.1 | 3,290 | 10'10" |
| Single grouser | 600 | 24 | 24,350 | 53,690 | 50.0 | 7.3 | 2,990 | 9'10" | 24,360 | 53,710 | 51.0 | 7.4 | 2,990 | 9'10" |
| Double grouser | 700 | 28 | 24,940 | 54,990 | 44.1 | 6.4 | 3,090 | 10'2" | 24,940 | 54,990 | 44.1 | 6.4 | 3,090 | 10'2" |
| | | | EC230F L, 5.7 m / 18'8" GP boom, 2.5 m / 8'2" HD arm, 1,036 kg / 2,280 lb bucket, 5,400 kg / 11,910 lb counterweight | | | | | | EC230F L, 5.7 m / 18'8" GP boom, 2.9 m / 9'6" GP arm, 1,036 kg / 2,280 lb bucket, 5,400 kg / 11,910 lb counterweight | | | | | |
| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | | Operating weight | | Ground pressure | | Overall width | |
| | mm | in | kg | lb | kPa | psi | mm | ft in | kg | lb | kPa | psi | mm | ft in |
| Triple grouser | 500 | 20 | 24,020 | 52,960 | 59.8 | 8.7 | 2,890 | 9'6" | 24,090 | 53,120 | 59.8 | 8.7 | 2,890 | 9'6" |
| | 600 | 24 | 24,280 | 53,540 | 50.0 | 7.3 | 2,990 | 9'10" | 24,350 | 53,690 | 50.0 | 7.3 | 2,990 | 9'10" |
| | 600 (HD) | 24 (HD) | 24,440 | 53,890 | 51.0 | 7.4 | 2,990 | 9'10" | 24,520 | 54,070 | 51.0 | 7.4 | 2,990 | 9'10" |
| | 700 | 28 | 24,620 | 54,290 | 44.1 | 6.4 | 3,090 | 10'2" | 24,690 | 54,440 | 44.1 | 6.4 | 3,090 | 10'2" |
| | 800 | 32 | 25,020 | 55,170 | 39.2 | 5.7 | 3,190 | 10'6" | 25,090 | 55,320 | 39.2 | 5.7 | 3,190 | 10'6" |
| | 900 | 36 | 25,300 | 55,790 | 35.3 | 5.1 | 3,290 | 10'10" | 25,380 | 55,960 | 35.3 | 5.1 | 3,290 | 10'10" |
| Single grouser | 600 | 24 | 24,410 | 53,820 | 51.0 | 7.4 | 2,990 | 9'10" | 24,480 | 53,980 | 51.0 | 7.4 | 2,990 | 9'10" |
| Double grouser | 700 | 28 | 24,990 | 55,100 | 44.1 | 6.4 | 3,090 | 10'2" | 25,070 | 55,280 | 44.1 | 6.4 | 3,090 | 10'2" |
| | | | EC230F L, 5.7 m / 18'8" GP boom, 2.9 m / 9'6" HD arm, 1,036 kg / 2,280 lb bucket, 5,400 kg / 11,910 lb counterweight | | | | | | EC230F L, 5.7 m / 18'8" GP boom, 3.5 m / 11'6" GP arm, 1,036 kg / 2,280 lb bucket, 5,400 kg / 11,910 lb counterweight | | | | | |

GROUND PRESSURE

| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | | Operating weight | | Ground pressure | | Overall width | |
|--|------------|---------|------------------|--------|-----------------|-------|---------------|--------|------------------|--------|-----------------|-------|---------------|-------|
| | mm | in | kg | lb | kPa | psi | mm | ft in | kg | lb | kPa | psi | mm | ft in |
| Triple grouser | 500 | 20 | 24,080 | 53,100 | 59.8 | 8.7 | 2,890 | 9'6" | 24,080 | 53,100 | 59.8 | 8.7 | 2,890 | 9'6" |
| | 600 | 24 | 24,340 | 53,670 | 50.0 | 7.3 | 2,990 | 9'10" | 24,340 | 53,670 | 50.0 | 7.3 | 2,990 | 9'10" |
| | 600 (HD) | 24 (HD) | 24,510 | 54,040 | 51.0 | 7.4 | 2,990 | 9'10" | 24,510 | 54,040 | 51.0 | 7.4 | 2,990 | 9'10" |
| | 700 | 28 | 24,690 | 54,440 | 44.1 | 6.4 | 3,090 | 10'2" | 24,680 | 54,420 | 44.1 | 6.4 | 3,090 | 10'2" |
| | 800 | 32 | 25,080 | 55,300 | 39.2 | 5.7 | 3,190 | 10'6" | 25,080 | 55,300 | 39.2 | 5.7 | 3,190 | 10'6" |
| 900 | 36 | 25,370 | 55,940 | 35.3 | 5.1 | 3,290 | 10'10" | 25,370 | 55,940 | 35.3 | 5.1 | 3,290 | 10'10" | |
| Single grouser | 600 | 24 | 24,480 | 53,980 | 51.0 | 7.4 | 2,990 | 9'10" | 24,470 | 53,960 | 51.0 | 7.4 | 2,990 | 9'10" |
| Double grouser | 700 | 28 | 25,060 | 55,260 | 44.1 | 6.4 | 3,090 | 10'2" | 25,060 | 55,260 | 44.1 | 6.4 | 3,090 | 10'2" |
| EC230F L, 5.7 m / 18'8" HD boom, 2.0 m / 6'7" ME arm, 1,036 kg / 2,280 lb bucket, 5,400 kg / 11,910 lb counterweight EC230F L, 5.7 m / 18'8" HD boom, 2.5 m / 8'2" HD arm, 1,036 kg / 2,280 lb bucket, 5,400 kg / 11,910 lb counterweight | | | | | | | | | | | | | | |
| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | | Operating weight | | Ground pressure | | Overall width | |
| | mm | in | kg | lb | kPa | psi | mm | ft in | kg | lb | kPa | psi | mm | ft in |
| Triple grouser | 500 | 20 | 24,090 | 53,120 | 59.8 | 8.7 | 2,890 | 9'6" | 24,140 | 53,230 | 59.8 | 8.7 | 2,890 | 9'6" |
| | 600 | 24 | 24,340 | 53,670 | 50.0 | 7.3 | 2,990 | 9'10" | 24,390 | 53,780 | 51.0 | 7.4 | 2,990 | 9'10" |
| | 600 (HD) | 24 (HD) | 24,510 | 54,040 | 51.0 | 7.4 | 2,990 | 9'10" | 24,560 | 54,150 | 51.0 | 7.4 | 2,990 | 9'10" |
| | 700 | 28 | 24,690 | 54,440 | 44.1 | 6.4 | 3,090 | 10'2" | 24,740 | 54,550 | 44.1 | 6.4 | 3,090 | 10'2" |
| | 800 | 32 | 25,090 | 55,320 | 39.2 | 5.7 | 3,190 | 10'6" | 25,140 | 55,430 | 39.2 | 5.7 | 3,190 | 10'6" |
| 900 | 36 | 25,370 | 55,940 | 35.3 | 5.1 | 3,290 | 10'10" | 25,420 | 56,050 | 35.3 | 5.1 | 3,290 | 10'10" | |
| Single grouser | 600 | 24 | 24,480 | 53,980 | 51.0 | 7.4 | 2,990 | 9'10" | 24,530 | 54,090 | 51.0 | 7.4 | 2,990 | 9'10" |
| Double grouser | 700 | 28 | 25,060 | 55,260 | 44.1 | 6.4 | 3,090 | 10'2" | 25,110 | 55,370 | 45.1 | 6.5 | 3,090 | 10'2" |
| EC230F L, 5.7 m / 18'8" HD boom, 2.9 m / 9'6" GP arm, 1,036 kg / 2,280 lb bucket, 5,400 kg / 11,910 lb counterweight EC230F L, 5.7 m / 18'8" HD boom, 2.9 m / 9'6" HD arm, 1,036 kg / 2,280 lb bucket, 5,400 kg / 11,910 lb counterweight | | | | | | | | | | | | | | |
| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | | Operating weight | | Ground pressure | | Overall width | |
| | mm | in | kg | lb | kPa | psi | mm | ft in | kg | lb | kPa | psi | mm | ft in |
| Triple grouser | 500 | 20 | 24,210 | 53,380 | 59.8 | 8.7 | 2,890 | 9'6" | 24,600 | 54,240 | 60.8 | 8.8 | 2,890 | 9'6" |
| | 600 | 24 | 24,470 | 53,960 | 51.0 | 7.4 | 2,990 | 9'10" | 24,860 | 54,820 | 52.0 | 7.5 | 2,990 | 9'10" |
| | 600 (HD) | 24 (HD) | 24,640 | 54,330 | 51.0 | 7.4 | 2,990 | 9'10" | 25,030 | 55,190 | 52.0 | 7.5 | 2,990 | 9'10" |
| | 700 | 28 | 24,810 | 54,710 | 44.1 | 6.4 | 3,090 | 10'2" | 25,200 | 55,570 | 45.1 | 6.5 | 3,090 | 10'2" |
| | 800 | 32 | 25,210 | 55,590 | 39.2 | 5.7 | 3,190 | 10'6" | 25,600 | 56,450 | 40.2 | 5.8 | 3,190 | 10'6" |
| 900 | 36 | 25,500 | 56,230 | 35.3 | 5.1 | 3,290 | 10'10" | 25,880 | 57,070 | 35.3 | 5.1 | 3,290 | 10'10" | |
| Single grouser | 600 | 24 | 24,600 | 54,240 | 51.0 | 7.4 | 2,990 | 9'10" | 24,990 | 55,100 | 52.0 | 7.5 | 2,990 | 9'10" |
| Double grouser | 700 | 28 | 25,190 | 55,540 | 45.1 | 6.5 | 3,090 | 10'2" | 25,580 | 56,400 | 45.1 | 6.5 | 3,090 | 10'2" |
| EC230F L, 5.7 m / 18'8" HD boom, 3.5 m / 11'6" GP arm, 1,036 kg / 2,280 lb bucket, 5,400 kg / 11,910 lb counterweight EC230F L, 5.57 m / 18'3" 2-pieces boom, 2.9 m / 9'6" GP arm, 1,036 kg / 2,280 lb bucket, 5,400 kg / 11,910 lb counterweight | | | | | | | | | | | | | | |
| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | | Operating weight | | Ground pressure | | Overall width | |
| | mm | in | kg | lb | kPa | psi | mm | ft in | kg | lb | kPa | psi | mm | ft in |
| Triple grouser | 500 | 20 | 24,650 | 54,350 | 61.8 | 9.0 | 2,890 | 9'6" | 24,720 | 54,510 | 61.8 | 9.0 | 2,890 | 9'6" |
| | 600 | 24 | 24,910 | 54,930 | 52.0 | 7.5 | 2,990 | 9'10" | 24,980 | 55,080 | 52.0 | 7.5 | 2,990 | 9'10" |
| | 600 (HD) | 24 (HD) | 25,080 | 55,300 | 52.0 | 7.5 | 2,990 | 9'10" | 25,150 | 55,460 | 52.0 | 7.5 | 2,990 | 9'10" |
| | 700 | 28 | 25,250 | 55,680 | 45.1 | 6.5 | 3,090 | 10'2" | 25,330 | 55,850 | 45.1 | 6.5 | 3,090 | 10'2" |
| | 800 | 32 | 25,650 | 56,560 | 40.2 | 5.8 | 3,190 | 10'6" | 25,720 | 56,710 | 40.2 | 5.8 | 3,190 | 10'6" |
| 900 | 36 | 25,930 | 57,180 | 36.3 | 5.3 | 3,290 | 10'10" | 26,010 | 57,350 | 36.3 | 5.3 | 3,290 | 10'10" | |
| Single grouser | 600 | 24 | 25,040 | 55,210 | 52.0 | 7.5 | 2,990 | 9'10" | 25,120 | 55,390 | 52.0 | 7.5 | 2,990 | 9'10" |
| Double grouser | 700 | 28 | 25,630 | 56,510 | 45.1 | 6.5 | 3,090 | 10'2" | 25,670 | 56,670 | 46.1 | 6.7 | 3,090 | 10'2" |
| EC230F L, 5.57 m / 18'3" 2-pieces boom, 2.9 m / 9'6" HD arm, 1,036 kg / 2,280 lb bucket, 5,400 kg / 11,910 lb counterweight EC230F L, 5.57 m / 18'3" 2-pieces boom, 3.5 m / 11'6" GP arm, 1,036 kg / 2,280 lb bucket, 5,400 kg / 11,910 lb counterweight | | | | | | | | | | | | | | |
| Description | Shoe width | | Operating weight | | Ground pressure | | Overall width | | Operating weight | | Ground pressure | | Overall width | |
| | mm | in | kg | lb | kPa | psi | mm | ft in | kg | lb | kPa | psi | mm | ft in |
| Triple grouser | 800 | 32 | 24,950 | 55,010 | 39.2 | 5.7 | 3,190 | 10'6" | | | | | | |
| | 900 | 36 | 25,230 | 55,630 | 35.3 | 5.1 | 3,290 | 10'10" | | | | | | |
| EC230F LR, 8.85 m / 29'0" LR, 6.25 m / 20'6" LR arm, 452 kg / 1,000 lb bucket, 5,400 kg / 11,910 lb counterweight | | | | | | | | | | | | | | |

Specifications

BUCKET SELECTION GUIDE

EC230F L with 600 mm (24") shoe, 4,600 kg (10,140 lb) counterweight

| Bucket Type | | Capacity | | Cutting width | | Weight | | Teeth | Recommended maximum material density (kg/m ³ / lb/yd ³) | | | | | | | |
|--------------------|-------|----------|-----------------|---------------|-------|--------|-------|-------|--|-------|-------------------|-------|-------------------|-------|--------------------|-------|
| | | | | | | | | | 5.7 m (18'8") GP Boom | | | | | | | |
| | | L | yd ³ | mm | ft in | kg | lb | EA | H2.5 m (8'2") Arm | | G2.9 m (9'6") Arm | | H2.9 m (9'6") Arm | | G3.5 m (11'6") Arm | |
| Direct fit Buckets | GP | 480 | 0.63 | 600 | 2'0" | 666 | 1,468 | 3 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 590 | 0.77 | 750 | 2'6" | 711 | 1,567 | 3 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 630 | 0.82 | 800 | 2'7" | 703 | 1,550 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 750 | 0.98 | 900 | 2'11" | 749 | 1,651 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 750 | 0.98 | 900 | 2'11" | 792 | 1,746 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 920 | 1.2 | 1,050 | 3'5" | 862 | 1,900 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 920 | 1.2 | 1,050 | 3'5" | 819 | 1,806 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 1,090 | 1.43 | 1,200 | 3'11" | 908 | 2,002 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 1,090 | 1.43 | 1,200 | 3'11" | 951 | 2,097 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 1,270 | 1.66 | 1,350 | 4'5" | 1,038 | 2,288 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,700 | 2,865 |
| | 1,270 | 1.66 | 1,350 | 4'5" | 995 | 2,194 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | |
| | 1,440 | 1.88 | 1,500 | 4'11" | 1,085 | 2,392 | 6 | 1,800 | 3,034 | 1,700 | 2,865 | 1,700 | 2,865 | 1,500 | 2,528 | |
| | 1,320 | 1.73 | 1,420 | 4'8" | 999 | 2,202 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | |
| | 1,320 | 1.73 | 1,420 | 4'8" | 1,041 | 2,295 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | |
| | HD | 480 | 0.63 | 600 | 2'0" | 738 | 1,627 | 3 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 480 | 0.63 | 600 | 2'0" | 675 | 1,488 | 3 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 750 | 0.98 | 900 | 2'11" | 872 | 1,922 | 4 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 750 | 0.98 | 900 | 2'11" | 808 | 1,781 | 4 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 920 | 1.2 | 1,050 | 3'5" | 951 | 2,097 | 4 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 920 | 1.2 | 1,050 | 3'5" | 888 | 1,958 | 4 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| 1,090 | | 1.43 | 1,200 | 3'11" | 1,046 | 2,306 | 5 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,000 | 3,371 | |
| 1,090 | | 1.43 | 1,200 | 3'11" | 983 | 2,167 | 5 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | |
| 1,270 | | 1.66 | 1,380 | 4'6" | 1,045 | 2,304 | 5 | 2,100 | 3,540 | 2,000 | 3,371 | 2,000 | 3,371 | 1,700 | 2,865 | |
| 1,270 | | 1.66 | 1,380 | 4'6" | 1,108 | 2,443 | 5 | 2,100 | 3,540 | 1,900 | 3,203 | 1,900 | 3,203 | 1,700 | 2,865 | |
| Bucket Type | | Capacity | | Cutting width | | Weight | | Teeth | Recommended maximum material density (kg/m ³ / lb/yd ³) | | | | | | | |
| | | | | | | | | | 5.7 m (18'8") HD Boom | | | | | | | |
| | | L | yd ³ | mm | ft in | kg | lb | EA | H2.5 m (8'2") Arm | | G2.9 m (9'6") Arm | | H2.9 m (9'6") Arm | | G3.5 m (11'6") Arm | |
| Direct fit Buckets | GP | 480 | 0.63 | 600 | 2'0" | 666 | 1,468 | 3 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 590 | 0.77 | 750 | 2'6" | 711 | 1,567 | 3 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 630 | 0.82 | 800 | 2'7" | 703 | 1,550 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 750 | 0.98 | 900 | 2'11" | 749 | 1,651 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 750 | 0.98 | 900 | 2'11" | 792 | 1,746 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 920 | 1.2 | 1,050 | 3'5" | 862 | 1,900 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 920 | 1.2 | 1,050 | 3'5" | 819 | 1,806 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 1,090 | 1.43 | 1,200 | 3'11" | 908 | 2,002 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 1,090 | 1.43 | 1,200 | 3'11" | 951 | 2,097 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 1,270 | 1.66 | 1,350 | 4'5" | 1,038 | 2,288 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,700 | 2,865 |
| | 1,270 | 1.66 | 1,350 | 4'5" | 995 | 2,194 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | |
| | 1,440 | 1.88 | 1,500 | 4'11" | 1,085 | 2,392 | 6 | 1,800 | 3,034 | 1,700 | 2,865 | 1,700 | 2,865 | 1,500 | 2,528 | |
| | 1,320 | 1.73 | 1,420 | 4'8" | 999 | 2,202 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | |
| | 1,320 | 1.73 | 1,420 | 4'8" | 1,041 | 2,295 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,600 | 2,697 | |
| | HD | 480 | 0.63 | 600 | 2'0" | 738 | 1,627 | 3 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 480 | 0.63 | 600 | 2'0" | 675 | 1,488 | 3 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 750 | 0.98 | 900 | 2'11" | 872 | 1,922 | 4 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 750 | 0.98 | 900 | 2'11" | 808 | 1,781 | 4 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 920 | 1.2 | 1,050 | 3'5" | 951 | 2,097 | 4 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 920 | 1.2 | 1,050 | 3'5" | 888 | 1,958 | 4 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| 1,090 | | 1.43 | 1,200 | 3'11" | 1,046 | 2,306 | 5 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,000 | 3,371 | |
| 1,090 | | 1.43 | 1,200 | 3'11" | 983 | 2,167 | 5 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | |
| 1,270 | | 1.66 | 1,380 | 4'6" | 1,045 | 2,304 | 5 | 2,100 | 3,540 | 2,000 | 3,371 | 1,900 | 3,203 | 1,700 | 2,865 | |
| 1,270 | | 1.66 | 1,380 | 4'6" | 1,108 | 2,443 | 5 | 2,100 | 3,540 | 1,900 | 3,203 | 1,900 | 3,203 | 1,700 | 2,865 | |

BUCKET SELECTION GUIDE

EC230F L with 600 mm (24") shoe, 4,600 kg (10,140 lb) counterweight

| Bucket Type | | Capacity | | Cutting width | | Weight | | Teeth | Recommended maximum material density (kg/m ³ / lb/yd ³) | | | | | | | |
|--------------------|-------|----------|-----------------|---------------|-------|--------|-------|-------|--|-------|-------------------|-------|-------------------|-------|--------------------|-------|
| | | L | yd ³ | mm | ft in | kg | lb | EA | 5.57 m (18'3") VA Boom | | | | | | | |
| | | | | | | | | | H2.5 m (8'2") Arm | | G2.9 m (9'6") Arm | | H2.9 m (9'6") Arm | | G3.5 m (11'6") Arm | |
| Direct fit Buckets | GP | 480 | 0.63 | 600 | 2'0" | 666 | 1,468 | 3 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 590 | 0.77 | 750 | 2'6" | 711 | 1,567 | 3 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 630 | 0.82 | 800 | 2'7" | 703 | 1,550 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 750 | 0.98 | 900 | 2'11" | 749 | 1,651 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 750 | 0.98 | 900 | 2'11" | 792 | 1,746 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 920 | 1.2 | 1,050 | 3'5" | 862 | 1,900 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 920 | 1.2 | 1,050 | 3'5" | 819 | 1,806 | 4 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 1,090 | 1.43 | 1,200 | 3'11" | 908 | 2,002 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 1,090 | 1.43 | 1,200 | 3'11" | 951 | 2,097 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 |
| | | 1,270 | 1.66 | 1,350 | 4'5" | 1,038 | 2,288 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,700 | 2,865 |
| | 1,270 | 1.66 | 1,350 | 4'5" | 995 | 2,194 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | |
| | 1,440 | 1.88 | 1,500 | 4'11" | 1,085 | 2,392 | 6 | 1,800 | 3,034 | 1,700 | 2,865 | 1,700 | 2,865 | 1,500 | 2,528 | |
| | 1,320 | 1.73 | 1,420 | 4'8" | 999 | 2,202 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,700 | 2,865 | |
| | 1,320 | 1.73 | 1,420 | 4'8" | 1,041 | 2,295 | 5 | 1,800 | 3,034 | 1,800 | 3,034 | 1,800 | 3,034 | 1,700 | 2,865 | |
| | HD | 480 | 0.63 | 600 | 2'0" | 738 | 1,627 | 3 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 480 | 0.63 | 600 | 2'0" | 675 | 1,488 | 3 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 750 | 0.98 | 900 | 2'11" | 872 | 1,922 | 4 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 750 | 0.98 | 900 | 2'11" | 808 | 1,781 | 4 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 920 | 1.2 | 1,050 | 3'5" | 951 | 2,097 | 4 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| | | 920 | 1.2 | 1,050 | 3'5" | 888 | 1,958 | 4 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 |
| 1,090 | | 1.43 | 1,200 | 3'11" | 1,046 | 2,306 | 5 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,000 | 3,371 | |
| 1,090 | | 1.43 | 1,200 | 3'11" | 983 | 2,167 | 5 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | 2,100 | 3,540 | |
| 1,270 | | 1.66 | 1,380 | 4'6" | 1,045 | 2,304 | 5 | 2,100 | 3,540 | 2,000 | 3,371 | 2,000 | 3,371 | 1,700 | 2,865 | |
| 1,270 | | 1.66 | 1,380 | 4'6" | 1,108 | 2,443 | 5 | 2,100 | 3,540 | 1,900 | 3,203 | 1,900 | 3,203 | 1,700 | 2,865 | |

Please consult with your Volvo dealer for the proper match of buckets and attachments to suit the application.
 (In case of using bigger bucket than regional standard MRS, consultation with R&D is highly recommended)
 The recommendations are given as a guide only, based on typical operation conditions.
 Bucket capacity based on ISO 7451, heaped material with a 1:1 angle of repose.
 Maximum load : Payload, bucket and additional tools such as quick coupler, rotator,
 VA Boom : Variable angle boom or two-piece boom

Specifications

LIFTING CAPACITY EC230F L

Lifting capacity at the arm end without bucket. For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

| | Lifting hook related to ground level | 1.5 m / 5 ft | | 3.0 m / 10 ft | | 4.5 m / 15 ft | | 6.0 m / 20 ft | | 7.5 m / 25 ft | | Max. reach | | Max. | |
|---|--------------------------------------|--------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|------------|-----------|---------|---------|
| | | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | | |
| Boom : 5.7 m GP 18'8" GP Arm : 2.5 m HD 8'2" HD Shoe : 800 mm 32" CWT : 4,600 kg 10,140 lb | 7.5 m | kg | | | | | | | | | | *5,680 | *5,680 | 5.6 m | |
| | 25 ft | lb | | | | | | | | | | *12,560 | *12,560 | 18.0 ft | |
| | 6.0 m | kg | | | | | | *5,500 | *5,500 | | | *5,600 | 4,770 | 6.8 m | |
| | 20 ft | lb | | | | | | *12,110 | *12,110 | | | *12,360 | 10,670 | 22.3 ft | |
| | 4.5 m | kg | | | | *6,970 | *6,970 | *6,010 | 5,760 | *5,680 | 4,070 | *5,690 | 3,990 | 7.6 m | |
| | 15 ft | lb | | | | *15,040 | *15,040 | *13,090 | 12,420 | | | *12,530 | 8,850 | 24.8 ft | |
| | 3.0 m | kg | | | | *8,970 | 8,340 | *6,880 | 5,510 | *5,980 | 3,970 | 5,530 | 3,610 | 8.0 m | |
| | 10 ft | lb | | | | *19,310 | 18,010 | *14,940 | 11,890 | *13,080 | 8,560 | 12,230 | 7,990 | 26.2 ft | |
| | 1.5 m | kg | | | | *10,730 | 7,850 | *7,780 | 5,270 | 5,970 | 3,860 | 5,360 | 3,480 | 8.1 m | |
| | 5 ft | lb | | | | *23,160 | 16,930 | *16,860 | 11,370 | 12,870 | 8,330 | 11,820 | 7,670 | 26.5 ft | |
| | 0 m | kg | | | | *11,530 | 7,620 | 8,140 | 5,110 | 5,890 | 3,790 | 5,500 | 3,550 | 7.9 m | |
| | 0 ft | lb | | | | *24,980 | 16,440 | 17,540 | 11,040 | 12,700 | 8,180 | 12,130 | 7,830 | 25.8 ft | |
| | -1.5 m | kg | | | *10,800 | *10,800 | *11,460 | 7,590 | 8,090 | 5,070 | | | 6,030 | 3,870 | 7.4 m |
| | -5 ft | lb | | | *24,670 | *24,670 | *24,840 | 16,360 | 17,430 | 10,940 | | | 13,330 | 8,560 | 24.1 ft |
| | -3.0 m | kg | | | *14,740 | *14,740 | *10,550 | 7,700 | *7,780 | 5,140 | | | *6,990 | 4,670 | 6.5 m |
| -10 ft | lb | | | *31,960 | *31,960 | *22,810 | 16,590 | *16,720 | 11,120 | | | *15,440 | 10,380 | 21.1 ft | |
| -4.5 m | kg | | | *11,410 | *11,410 | *8,150 | 7,990 | | | | | *7,140 | 6,930 | 5.0 m | |
| -15 ft | lb | | | *24,390 | *24,390 | *17,220 | *17,220 | | | | | *15,720 | *15,720 | 16.0 ft | |
| Boom : 5.7 m GP 18'8" GP Arm : 2.9 m HD 9'6" HD Shoe : 800 mm 32" CWT : 4,600 kg 10,140 lb | 7.5 m | kg | | | | | | *5,180 | *5,180 | | | *4,960 | *4,960 | 6.2 m | |
| | 25 ft | lb | | | | | | | | | | *11,040 | *11,040 | 19.8 ft | |
| | 6.0 m | kg | | | | | | *5,070 | *5,070 | | | *4,630 | 4,340 | 7.3 m | |
| | 20 ft | lb | | | | | | *11,160 | *11,160 | | | *10,230 | 9,710 | 23.8 ft | |
| | 4.5 m | kg | | | | | | *5,640 | *5,640 | *5,330 | 4,120 | *4,570 | 3,700 | 8.0 m | |
| | 15 ft | lb | | | | | | *12,290 | *12,290 | *11,730 | 8,860 | *10,060 | 8,200 | 26.2 ft | |
| | 3.0 m | kg | | | | *8,390 | *8,390 | *6,560 | 5,570 | *5,730 | 4,010 | *4,690 | 3,380 | 8.4 m | |
| | 10 ft | lb | | | | *18,060 | *18,060 | *14,240 | 12,030 | *12,510 | 8,640 | *10,320 | 7,460 | 27.4 ft | |
| | 1.5 m | kg | | | | *10,290 | 7,930 | *7,520 | 5,310 | 5,990 | 3,880 | *5,010 | 3,260 | 8.5 m | |
| | 5 ft | lb | | | | *22,200 | 17,110 | *16,310 | 11,460 | 12,920 | 8,370 | *11,010 | 7,190 | 27.8 ft | |
| | 0 m | kg | | | *5,420 | *5,420 | *11,350 | 7,630 | 8,160 | 5,120 | 5,890 | 3,780 | 5,120 | 3,310 | 8.3 m |
| | 0 ft | lb | | | *12,560 | *12,560 | *24,560 | 16,450 | 17,570 | 11,050 | 12,690 | 8,170 | 11,300 | 7,310 | 27.1 ft |
| | -1.5 m | kg | *6,270 | *6,270 | *10,310 | *10,310 | *11,510 | 7,550 | 8,070 | 5,040 | 5,860 | 3,750 | 5,560 | 3,580 | 7.8 m |
| | -5 ft | lb | *14,060 | *14,060 | *23,460 | *23,460 | *24,960 | 16,270 | 17,380 | 10,890 | 12,640 | 8,120 | 12,290 | 7,910 | 25.5 ft |
| | -3.0 m | kg | *11,370 | *11,370 | *15,560 | 14,800 | *10,870 | 7,620 | *8,050 | 5,080 | | | 6,580 | 4,210 | 7.0 m |
| -10 ft | lb | *25,560 | *25,560 | *33,730 | 31,720 | *23,520 | 16,430 | *17,370 | 10,980 | | | 14,620 | 9,350 | 22.7 ft | |
| -4.5 m | kg | | | *12,680 | *12,680 | *9,020 | 7,860 | | | | | *6,890 | 5,810 | 5.6 m | |
| -15 ft | lb | | | *27,220 | *27,220 | *19,270 | 16,970 | | | | | *15,200 | 13,120 | 18.1 ft | |
| Boom : 5.7 m GP 18'8" GP Arm : 2.9 m GP 9'6" GP Shoe : 800 mm 32" CWT : 4,600 kg 10,140 lb | 7.5 m | kg | | | | | | *5,210 | *5,210 | | | *4,970 | *4,970 | 6.2 m | |
| | 25 ft | lb | | | | | | | | | | *11,060 | *11,060 | 19.8 ft | |
| | 6.0 m | kg | | | | | | *5,100 | *5,100 | | | *4,630 | 4,370 | 7.3 m | |
| | 20 ft | lb | | | | | | *11,220 | *11,220 | | | *10,250 | 9,760 | 23.8 ft | |
| | 4.5 m | kg | | | | | | *5,670 | *5,670 | *5,360 | 4,140 | *4,580 | 3,720 | 8.0 m | |
| | 15 ft | lb | | | | | | *12,360 | *12,360 | *11,800 | 8,920 | *10,080 | 8,260 | 26.2 ft | |
| | 3.0 m | kg | | | | *8,430 | *8,430 | *6,590 | 5,600 | *5,760 | 4,030 | *4,700 | 3,400 | 8.4 m | |
| | 10 ft | lb | | | | *18,150 | *18,150 | *14,310 | 12,090 | *12,580 | 8,690 | *10,350 | 7,520 | 27.4 ft | |
| | 1.5 m | kg | | | | *10,340 | 7,970 | *7,560 | 5,340 | 6,020 | 3,910 | *5,020 | 3,280 | 8.5 m | |
| | 5 ft | lb | | | | *22,320 | 17,210 | *16,400 | 11,530 | 12,980 | 8,430 | *11,030 | 7,250 | 27.8 ft | |
| | 0 m | kg | | | *5,430 | *5,430 | *11,400 | 7,680 | 8,200 | 5,160 | 5,920 | 3,810 | 5,150 | 3,340 | 8.3 m |
| | 0 ft | lb | | | *12,580 | *12,580 | *24,680 | 16,560 | 17,650 | 11,130 | 12,760 | 8,230 | 11,360 | 7,370 | 27.1 ft |
| | -1.5 m | kg | *6,280 | *6,280 | *10,320 | *10,320 | *11,570 | 7,600 | 8,110 | 5,080 | 5,880 | 3,780 | 5,590 | 3,610 | 7.8 m |
| | -5 ft | lb | *14,080 | *14,080 | *23,480 | *23,480 | *25,080 | 16,380 | 17,460 | 10,970 | 12,700 | 8,180 | 12,350 | 7,970 | 25.5 ft |
| | -3.0 m | kg | *11,380 | *11,380 | *15,630 | 14,880 | *10,920 | 7,670 | *8,090 | 5,120 | | | 6,610 | 4,240 | 7.0 m |
| -10 ft | lb | *25,580 | *25,580 | *33,880 | 31,890 | *23,640 | 16,530 | *17,460 | 11,060 | | | 14,690 | 9,410 | 22.7 ft | |
| -4.5 m | kg | | | *12,740 | *12,740 | *9,070 | 7,900 | | | | | *6,930 | 5,840 | 5.6 m | |
| -15 ft | lb | | | *27,350 | *27,350 | *19,370 | 17,060 | | | | | *15,290 | 13,190 | 18.1 ft | |

Notes: 1. Machine in "Fine Mode-F" (Power Boost) for lifting capacities. 2. The above loads are in compliance with SAE J1097 and ISO 10567 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 EC230F L

Lifting capacity at the arm end without bucket. For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

| | Lifting hook related to ground level | 1.5 m / 5 ft | | 3.0 m / 10 ft | | 4.5 m / 15 ft | | 6.0 m / 20 ft | | 7.5 m / 25 ft | | Max. reach | | Max. | | | |
|--|--------------------------------------|--------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|------------|-----------|---------|---------|---------|---------|
| | | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | | | | |
| Boom : 5.7 m GP 18'8" GP Arm : 3.5 m GP 11'6" GP Shoe : 800 mm 32" CWT : 4,600 kg 10,140 lb | 7.5 m | kg | | | | | | | | | | | *4,250 | *4,250 | 6.8 m | | |
| | 25 ft | lb | | | | | | | | | | | | *9,440 | *9,440 | 21.9 ft | |
| | 6.0 m | kg | | | | | | | | *4,610 | 4,220 | *4,040 | 3,910 | | | 7.8 m | |
| | 20 ft | lb | | | | | | | | *9,980 | 9,060 | *8,920 | 8,730 | | | 25.5 ft | |
| | 4.5 m | kg | | | | | *5,010 | *5,010 | *4,820 | 4,150 | *4,020 | 3,380 | | | | 8.5 m | |
| | 15 ft | lb | | | | | *10,920 | *10,920 | *10,580 | 8,940 | *8,860 | 7,490 | | | | 27.8 ft | |
| | 3.0 m | kg | | | *11,270 | *11,270 | *7,410 | *7,410 | *5,980 | 5,630 | *5,300 | 4,020 | *4,150 | 3,100 | | | 8.8 m |
| | 10 ft | lb | | | *23,950 | *23,950 | *15,980 | *15,980 | *12,990 | 12,140 | *11,560 | 8,660 | *9,150 | 6,850 | | | 29.0 ft |
| | 1.5 m | kg | | | | | *9,520 | 8,060 | *7,050 | 5,340 | *5,860 | 3,870 | *4,450 | 2,980 | | | 8.9 m |
| | 5 ft | lb | | | | | *20,550 | 17,380 | *15,290 | 11,520 | *12,760 | 8,350 | *9,790 | 6,590 | | | 29.3 ft |
| | 0 m | kg | | | *7,050 | *7,050 | *10,940 | 7,660 | *7,910 | 5,110 | 5,850 | 3,750 | 4,690 | 3,020 | | | 8.7 m |
| | 0 ft | lb | | | *16,140 | *16,140 | *23,670 | 16,520 | *17,150 | 11,030 | 12,620 | 8,090 | 10,340 | 6,660 | | | 28.7 ft |
| | -1.5 m | kg | *6,210 | *6,210 | *10,310 | *10,310 | *11,470 | 7,500 | 8,020 | 4,990 | 5,780 | 3,680 | 5,030 | 3,220 | | | 8.3 m |
| | -5 ft | lb | *13,880 | *13,880 | *23,400 | *23,400 | *24,860 | 16,160 | 17,270 | 10,770 | 12,470 | 7,950 | 11,110 | 7,120 | | | 27.2 ft |
| | -3.0 m | kg | *10,120 | *10,120 | *15,210 | 14,590 | *11,190 | 7,510 | 8,010 | 4,980 | 5,810 | 3,710 | 5,800 | 3,700 | | | 7.5 m |
| -10 ft | lb | *22,720 | *22,720 | *34,600 | 31,280 | *24,220 | 16,180 | 17,250 | 10,760 | | | 12,870 | 8,210 | | | 24.5 ft | |
| -4.5 m | kg | *15,160 | *15,160 | *14,260 | *14,260 | *9,910 | 7,670 | *7,170 | 5,110 | | | *6,700 | 4,820 | | | 6.3 m | |
| -15 ft | lb | *34,230 | *34,230 | *30,700 | *30,700 | *21,310 | 16,540 | *15,230 | 11,060 | | | *14,830 | 10,820 | | | 20.3 ft | |
| Boom : 5.7 m HD 18'8" HD Arm : 2.0 m ME 6'7" ME Shoe : 800 mm 32" CWT : 4,600 kg 10,140 lb | 7.5 m | kg | | | | | | | | | | | *6,290 | *6,290 | 4.9 m | | |
| | 25 ft | lb | | | | | | | | | | | | *13,960 | *13,960 | 15.6 ft | |
| | 6.0 m | kg | | | | | | *6,030 | 5,800 | | | | | *6,070 | 5,350 | 6.3 m | |
| | 20 ft | lb | | | | | | *13,330 | 12,460 | | | | | *13,390 | 12,020 | 20.4 ft | |
| | 4.5 m | kg | | | | | *7,640 | *7,640 | *6,410 | 5,650 | | | | *6,110 | 4,350 | 7.1 m | |
| | 15 ft | lb | | | | | *16,470 | *16,470 | *13,970 | 12,190 | | | | *13,460 | 9,660 | 23.2 ft | |
| | 3.0 m | kg | | | | | *9,600 | 8,120 | *7,210 | 5,410 | 6,030 | 3,900 | 6,010 | 3,890 | | | 7.5 m |
| | 10 ft | lb | | | | | *20,650 | 17,550 | *15,640 | 11,680 | | | | 13,280 | 8,610 | | 24.6 ft |
| | 1.5 m | kg | | | | | | | *7,990 | 5,180 | 5,930 | 3,820 | 5,800 | 3,740 | | | 7.6 m |
| | 5 ft | lb | | | | | | | *17,310 | 11,200 | | | | 12,800 | 8,250 | | 25.0 ft |
| | 0 m | kg | | | | | *11,520 | 7,540 | 8,090 | 5,060 | | | | 5,980 | 3,830 | | 7.4 m |
| | 0 ft | lb | | | | | *24,980 | 16,250 | 17,440 | 10,920 | | | | 13,200 | 8,450 | | 24.3 ft |
| | -1.5 m | kg | | | | | *11,140 | 7,570 | 8,080 | 5,050 | | | | 6,680 | 4,250 | | 6.9 m |
| | -5 ft | lb | | | | | *24,180 | 16,300 | 17,410 | 10,900 | | | | 14,770 | 9,400 | | 22.5 ft |
| | -3.0 m | kg | | | *13,310 | *13,310 | *9,900 | 7,720 | | | | | | *7,330 | 5,330 | | 5.9 m |
| -10 ft | lb | | | *28,900 | *28,900 | *21,390 | 16,660 | | | | | | *16,170 | 11,870 | | 19.2 ft | |
| Boom : 5.7 m HD 18'8" HD Arm : 2.5 m HD 8'2" HD Shoe : 800 mm 32" CWT : 4,600 kg 10,140 lb | 7.5 m | kg | | | | | | | | | | | *5,660 | *5,660 | 5.6 m | | |
| | 25 ft | lb | | | | | | | | | | | | *12,530 | *12,530 | 18.0 ft | |
| | 6.0 m | kg | | | | | | *5,480 | *5,480 | | | | | *5,580 | 4,760 | 6.8 m | |
| | 20 ft | lb | | | | | | *12,070 | *12,070 | | | | | *12,300 | 10,660 | 22.3 ft | |
| | 4.5 m | kg | | | | | *6,950 | *6,950 | *5,980 | 5,750 | *5,650 | 4,050 | | *5,660 | 3,970 | | 7.6 m |
| | 15 ft | lb | | | | | *14,990 | *14,990 | *13,040 | 12,400 | | | | *12,470 | 8,820 | | 24.8 ft |
| | 3.0 m | kg | | | | | *8,930 | 8,320 | *6,850 | 5,490 | *5,950 | 3,960 | 5,520 | 3,600 | | | 8.0 m |
| | 10 ft | lb | | | | | *19,230 | 17,980 | *14,870 | 11,860 | *13,010 | 8,530 | 12,210 | 7,950 | | | 26.2 ft |
| | 1.5 m | kg | | | | | *10,680 | 7,810 | *7,740 | 5,250 | 5,960 | 3,840 | 5,350 | 3,460 | | | 8.1 m |
| | 5 ft | lb | | | | | *23,040 | 16,870 | *16,770 | 11,330 | 12,840 | 8,290 | 11,790 | 7,630 | | | 26.5 ft |
| | 0 m | kg | | | | | *11,470 | 7,580 | 8,130 | 5,090 | 5,870 | 3,770 | 5,480 | 3,530 | | | 7.9 m |
| | 0 ft | lb | | | | | *24,840 | 16,350 | 17,500 | 10,980 | 12,670 | 8,130 | 12,090 | 7,780 | | | 25.8 ft |
| | -1.5 m | kg | | | *10,800 | *10,800 | *11,390 | 7,550 | 8,070 | 5,040 | | | | 6,020 | 3,850 | | 7.4 m |
| | -5 ft | lb | | | *24,670 | *24,670 | *24,700 | 16,270 | 17,380 | 10,870 | | | | 13,300 | 8,510 | | 24.1 ft |
| | -3.0 m | kg | | | *14,650 | *14,650 | *10,480 | 7,660 | *7,740 | 5,110 | | | | *6,950 | 4,640 | | 6.5 m |
| -10 ft | lb | | | *31,770 | *31,770 | *22,680 | 16,500 | *16,620 | 11,050 | | | | *15,340 | 10,320 | | 21.1 ft | |
| -4.5 m | kg | | | *11,320 | *11,320 | *8,100 | 7,950 | | | | | | *7,090 | 6,900 | | 5.0 m | |
| -15 ft | lb | | | *24,210 | *24,210 | *17,100 | *17,100 | | | | | | *15,600 | *15,600 | | 16.0 ft | |

Notes: 1. Machine in "Fine Mode-F" (Power Boost) for lifting capacities. 2. The above loads are in compliance with SAE J1097 and ISO 10567 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.

Specifications

LIFTING CAPACITY EC230F L

Lifting capacity at the arm end without bucket. For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

| | Lifting hook related to ground level | 1.5 m / 5 ft | | 3.0 m / 10 ft | | 4.5 m / 15 ft | | 6.0 m / 20 ft | | 7.5 m / 25 ft | | Max. reach | | Max. | |
|--|--------------------------------------|--------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|------------|-----------|---------|---------|
| | | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | | |
| Boom : 5.7 m HD 18'8" HD Arm : 2.9 m HD 9'6" HD Shoe : 800 mm 32" CWT : 4,600 kg 10,140 lb | 7.5 m | kg | | | | | | *5,170 | *5,170 | | | *4,960 | *4,960 | 6.2 m | |
| | 25 ft | lb | | | | | | | | | | *11,040 | *11,040 | 19.8 ft | |
| | 6.0 m | kg | | | | | | *5,060 | *5,060 | | | *4,630 | 4,340 | 7.3 m | |
| | 20 ft | lb | | | | | | *11,130 | *11,130 | | | *10,230 | 9,700 | 23.8 ft | |
| | 4.5 m | kg | | | | | | *5,620 | *5,620 | *5,310 | 4,110 | *4,570 | 3,690 | 8.0 m | |
| | 15 ft | lb | | | | | | *12,250 | *12,250 | *11,680 | 8,840 | *10,060 | 8,180 | 26.2 ft | |
| | 3.0 m | kg | | | | *8,350 | *8,350 | *6,530 | 5,560 | *5,700 | 3,990 | *4,690 | 3,360 | 8.4 m | |
| | 10 ft | lb | | | | *17,990 | *17,990 | *14,170 | 12,010 | *12,450 | 8,610 | *10,320 | 7,430 | 27.4 ft | |
| | 1.5 m | kg | | | | *10,240 | 7,900 | *7,480 | 5,290 | 5,980 | 3,860 | 5,000 | 3,240 | 8.5 m | |
| | 5 ft | lb | | | | *22,100 | 17,050 | *16,230 | 11,420 | 12,890 | 8,330 | *11,010 | 7,150 | 27.8 ft | |
| | 0 m | kg | | | *5,420 | *5,420 | *11,290 | 7,590 | 8,140 | 5,100 | 5,870 | 3,760 | 5,110 | 3,290 | 8.3 m |
| | 0 ft | lb | | | *12,560 | *12,560 | *24,430 | 16,360 | 17,530 | 11,000 | 12,660 | 8,120 | 11,270 | 7,260 | 27.1 ft |
| | -1.5 m | kg | *6,270 | *6,270 | *10,310 | *10,310 | *11,450 | 7,510 | 8,050 | 5,010 | 5,840 | 3,730 | 5,540 | 3,560 | 7.8 m |
| | -5 ft | lb | *14,060 | *14,060 | *23,460 | *23,460 | *24,830 | 16,170 | 17,340 | 10,820 | 12,600 | 8,070 | 12,250 | 7,860 | 25.5 ft |
| | -3.0 m | kg | *11,370 | *11,370 | *15,470 | 14,720 | *10,810 | 7,580 | *8,010 | 5,050 | | | 6,560 | 4,180 | 7.0 m |
| -10 ft | lb | *25,560 | *25,560 | *33,520 | 31,560 | *23,380 | 16,340 | *17,270 | 10,920 | | | *14,550 | 9,290 | 22.7 ft | |
| -4.5 m | kg | | | *12,600 | *12,600 | *8,970 | 7,820 | | | | | *6,840 | 5,780 | 5.6 m | |
| -15 ft | lb | | | *27,030 | *27,030 | *19,150 | 16,890 | | | | | *15,100 | 13,060 | 18.1 ft | |
| Boom : 5.7 m HD 18'8" HD Arm : 2.9 m GP 9'6" GP Shoe : 800 mm 32" CWT : 4,600 kg 10,140 lb | 7.5 m | kg | | | | | | *5,190 | *5,190 | | | *4,970 | *4,970 | 6.2 m | |
| | 25 ft | lb | | | | | | | | | | *11,060 | *11,060 | 19.8 ft | |
| | 6.0 m | kg | | | | | | *5,080 | *5,080 | | | *4,630 | 4,360 | 7.3 m | |
| | 20 ft | lb | | | | | | *11,190 | *11,190 | | | *10,250 | 9,750 | 23.8 ft | |
| | 4.5 m | kg | | | | | | *5,650 | *5,650 | *5,340 | 4,130 | *4,580 | 3,710 | 8.0 m | |
| | 15 ft | lb | | | | | | *12,310 | *12,310 | *11,740 | 8,890 | *10,080 | 8,230 | 26.2 ft | |
| | 3.0 m | kg | | | | *8,390 | *8,390 | *6,570 | 5,590 | *5,730 | 4,020 | *4,700 | 3,390 | 8.4 m | |
| | 10 ft | lb | | | | *18,080 | *18,080 | *14,250 | 12,070 | *12,520 | 8,670 | *10,350 | 7,490 | 27.4 ft | |
| | 1.5 m | kg | | | | *10,290 | 7,950 | *7,520 | 5,320 | 6,010 | 3,890 | *5,020 | 3,270 | 8.5 m | |
| | 5 ft | lb | | | | *22,210 | 17,150 | *16,310 | 11,490 | 12,950 | 8,390 | *11,030 | 7,210 | 27.8 ft | |
| | 0 m | kg | | | *5,430 | *5,430 | *11,340 | 7,640 | 8,180 | 5,130 | 5,900 | 3,790 | 5,140 | 3,320 | 8.3 m |
| | 0 ft | lb | | | *12,580 | *12,580 | *24,550 | 16,470 | 17,610 | 11,080 | 12,730 | 8,190 | 11,330 | 7,320 | 27.1 ft |
| | -1.5 m | kg | *6,280 | *6,280 | *10,320 | *10,320 | *11,510 | 7,560 | 8,090 | 5,050 | 5,870 | 3,760 | 5,570 | 3,580 | 7.8 m |
| | -5 ft | lb | *14,080 | *14,080 | *23,480 | *23,480 | *24,950 | 16,280 | 17,420 | 10,910 | 12,670 | 8,130 | 12,310 | 7,920 | 25.5 ft |
| | -3.0 m | kg | *11,380 | *11,380 | *15,540 | 14,800 | *10,860 | 7,630 | *8,050 | 5,090 | | | 6,590 | 4,210 | 7.0 m |
| -10 ft | lb | *25,580 | *25,580 | *33,680 | 31,720 | *23,500 | 16,440 | *17,360 | 11,000 | | | *14,630 | 9,360 | 22.7 ft | |
| -4.5 m | kg | | | *12,660 | *12,660 | *9,010 | 7,860 | | | | | *6,880 | 5,820 | 5.6 m | |
| -15 ft | lb | | | *27,170 | *27,170 | *19,250 | 16,980 | | | | | *15,180 | 13,130 | 18.1 ft | |
| Boom : 5.7 m HD 18'8" HD Arm : 3.5 m GP 11'6" GP Shoe : 800 mm 32" CWT : 4,600 kg 10,140 lb | 7.5 m | kg | | | | | | | | | | *4,250 | *4,250 | 6.8 m | |
| | 25 ft | lb | | | | | | | | | | *9,440 | *9,440 | 21.9 ft | |
| | 6.0 m | kg | | | | | | | | | | *4,590 | 4,220 | 7.8 m | |
| | 20 ft | lb | | | | | | | | | | *9,980 | 9,050 | 25.5 ft | |
| | 4.5 m | kg | | | | | | *4,990 | *4,990 | *4,800 | 4,150 | *4,020 | 3,370 | 8.5 m | |
| | 15 ft | lb | | | | | | *10,890 | *10,890 | *10,530 | 8,920 | *8,860 | 7,470 | 27.8 ft | |
| | 3.0 m | kg | | | *11,230 | *11,230 | *7,390 | *7,390 | *5,960 | 5,620 | *5,270 | 4,010 | *4,150 | 3,080 | 8.8 m |
| | 10 ft | lb | | | *23,880 | *23,880 | *15,920 | *15,920 | *12,940 | 12,130 | *11,510 | 8,640 | *9,150 | 6,820 | 29.0 ft |
| | 1.5 m | kg | | | | | *9,480 | 8,040 | *7,010 | 5,320 | *5,830 | 3,860 | *4,450 | 2,970 | 8.9 m |
| | 5 ft | lb | | | | | *20,450 | 17,340 | *15,210 | 11,490 | *12,700 | 8,310 | *9,790 | 6,550 | 29.3 ft |
| | 0 m | kg | | | *7,050 | *7,050 | *10,880 | 7,630 | *7,870 | 5,090 | 5,840 | 3,730 | 4,680 | 3,000 | 8.7 m |
| | 0 ft | lb | | | *16,140 | *16,140 | *23,550 | 16,440 | *17,060 | 10,980 | 12,590 | 8,040 | 10,310 | 6,620 | 28.7 ft |
| | -1.5 m | kg | *6,210 | *6,210 | *10,310 | *10,310 | *11,410 | 7,460 | 8,000 | 4,960 | 5,770 | 3,660 | 5,010 | 3,200 | 8.3 m |
| | -5 ft | lb | *13,880 | *13,880 | *23,400 | *23,400 | *24,720 | 16,070 | 17,220 | 10,710 | 12,440 | 7,900 | 11,070 | 7,080 | 27.2 ft |
| | -3.0 m | kg | *10,120 | *10,120 | *15,210 | 14,510 | *11,120 | 7,470 | 7,990 | 4,950 | 5,790 | 3,680 | 5,780 | 3,680 | 7.5 m |
| -10 ft | lb | *22,720 | *22,720 | *34,600 | 31,100 | *24,080 | 16,090 | 17,200 | 10,690 | | | 12,840 | 8,160 | 24.5 ft | |
| -4.5 m | kg | *15,160 | *15,160 | *14,170 | *14,170 | *9,850 | 7,630 | *7,120 | 5,080 | | | *6,660 | 4,790 | 6.3 m | |
| -15 ft | lb | *34,230 | *34,230 | *30,500 | *30,500 | *21,170 | 16,460 | *15,130 | 11,000 | | | *14,740 | 10,770 | 20.3 ft | |

Notes: 1. Machine in "Fine Mode-F" (Power Boost) for lifting capacities. 2. The above loads are in compliance with SAE J1097 and ISO 10567 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 EC230F LR

Lifting capacity at the arm end without bucket. For lifting capacity including bucket, simply subtract actual weight of the direct fit bucket or the bucket with quick coupler from the following values.

| | Lifting hook related to ground level | 1.5 m / 5 ft | | 3.0 m / 10 ft | | 4.5 m / 15 ft | | 6.0 m / 20 ft | | 7.5 m / 25 ft | | 9.0 m / 30 ft | | 10.5 m / 35 ft | | 12.0 m / 40 ft | | 13.5 m / 45 ft | | Max. reach | | | | | | |
|---|--------------------------------------|--------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|------------|-----------|--------|--------|---------|---------|---------|
| | | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Along UC | Across UC | Max. | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Boom : 8.85 m LR 29'0" LR Arm : 6.25 m LR 20'6"m LR Shoe : 800 mm 32" CWT : 5,400 kg 11,910 lb | 12.0 m kg | | | | | | | | | | | | | | | | | | | | | *870 | *870 | 10.3 m | | |
| | 40 ft lb | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10.5 m kg | | | | | | | | | | | | | | | | | | | | | | *790 | *790 | 11.6 m | |
| | 35 ft lb | | | | | | | | | | | | | | *3,500 | *3,500 | | | | | | | *1,770 | *1,770 | 37.6 ft | |
| | 9.0 m kg | | | | | | | | | | | | | | | | *1,440 | *1,440 | | | | | *750 | *750 | 12.6 m | |
| | 30 ft lb | | | | | | | | | | | | | | *4,750 | *4,750 | *2,580 | *2,580 | | | | | *1,670 | *1,670 | 41.1 ft | |
| | 7.5 m kg | | | | | | | | | | | | | | | | *2,050 | *2,050 | | | | | *730 | *730 | 13.4 m | |
| | 25 ft lb | | | | | | | | | | | | | | | | *4,900 | *4,900 | *4,170 | *4,170 | | | | *1,620 | *1,620 | 43.7 ft |
| | 6.0 m kg | | | | | | | | | | | | | | | | *2,390 | *2,390 | *2,330 | 2,110 | *1,320 | *1,320 | *730 | *730 | 13.9 m | |
| | 20 ft lb | | | | | | | | | | | | | | | | *5,230 | *5,230 | *5,110 | 4,530 | *2,200 | *2,200 | *1,620 | *1,620 | 45.6 ft | |
| | 4.5 m kg | | | | | | | | | | | | | | *2,820 | *2,820 | *2,610 | 2,590 | *2,470 | 2,030 | *1,810 | 1,600 | *740 | *740 | 14.3 m | |
| | 15 ft lb | | | | | | | | | | | | | | *6,130 | *6,130 | *5,700 | 5,580 | *5,400 | 4,360 | *3,420 | *3,420 | *1,640 | *1,640 | 46.9 ft | |
| | 3.0 m kg | | | | | *6,290 | *6,290 | *4,580 | *4,580 | *3,720 | *3,720 | *3,200 | 3,140 | *2,870 | 2,450 | *2,640 | 1,940 | *2,160 | 1,550 | | | | *770 | *770 | 14.5 m | |
| | 10 ft lb | | | | | *13,260 | *13,470 | *13,470 | *9,880 | *9,880 | *8,050 | *8,050 | *6,950 | 6,770 | *6,240 | 5,270 | *5,760 | 4,160 | *4,220 | 3,310 | | | *1,710 | *1,710 | 47.6 ft | |
| | 1.5 m kg | | | | | *7,930 | 7,490 | *5,570 | 5,140 | *4,320 | 3,790 | *3,600 | 2,920 | *3,140 | 2,300 | *2,820 | 1,840 | *2,410 | 1,490 | | | | *820 | *820 | 14.6 m | |
| | 5 ft lb | | | | | 16,220 | *12,020 | 11,110 | *9,360 | 8,190 | *7,810 | 6,290 | *6,820 | 4,950 | *6,150 | 3,960 | *4,720 | 3,180 | *1,800 | | | | *1,800 | *1,800 | 47.8 ft | |
| | 0 m kg | | | | | *2,460 | *5,610 | *5,610 | *6,350 | 4,680 | *4,850 | 3,500 | *3,960 | 2,720 | *3,390 | 2,170 | 2,880 | 1,750 | 2,400 | 1,430 | | | *880 | *880 | 14.4 m | |
| | 0 ft lb | | | | | *5,580 | *12,890 | *12,890 | *13,740 | 10,120 | *10,500 | 7,550 | *8,590 | 5,860 | *7,360 | 4,660 | 6,200 | 3,770 | *4,820 | 3,070 | | | *1,940 | *1,940 | 47.4 ft | |
| | -1.5 m kg | *2,640 | *2,640 | *3,340 | *3,340 | *5,610 | *5,610 | *6,860 | 4,410 | *5,240 | 3,280 | 4,220 | 2,570 | 3,400 | 2,060 | 2,800 | 1,680 | *2,340 | 1,390 | | | | *970 | *970 | 14.2 m | |
| | -5 ft lb | *5,850 | *5,850 | *7,510 | *7,510 | *12,760 | *12,760 | *14,850 | 9,510 | *11,360 | 7,090 | 9,110 | 5,530 | 7,320 | 4,430 | 6,030 | 3,610 | *4,250 | 2,980 | | | | *2,140 | *2,140 | 46.5 ft | |
| | -3.0 m kg | *3,560 | *3,560 | *4,320 | *4,320 | *6,300 | *6,300 | *7,100 | 4,270 | 5,310 | 3,160 | 4,120 | 2,460 | 3,320 | 1,980 | 2,750 | 1,630 | *1,680 | 1,360 | | | | *1,090 | *1,090 | 13.7 m | |
| | -10 ft lb | *7,920 | *7,920 | *9,700 | *9,700 | *14,270 | 13,840 | *15,390 | 9,210 | 11,450 | 6,810 | 8,880 | 5,320 | 7,160 | 4,280 | 5,930 | 3,510 | *2,480 | *2,480 | | | | *2,430 | *2,430 | 45.0 ft | |
| | -4.5 m kg | *4,520 | *4,520 | *5,390 | *5,390 | *7,350 | 6,450 | *7,120 | 4,230 | 5,250 | 3,100 | 4,060 | 2,420 | 3,280 | 1,950 | 2,730 | 1,610 | | | | | | *1,270 | *1,270 | 13.1 m | |
| | -15 ft lb | *10,090 | *10,090 | *12,110 | *12,110 | *16,640 | 13,900 | *15,420 | 9,130 | 11,320 | 6,700 | 8,760 | 5,210 | 7,080 | 4,200 | 5,900 | 3,480 | | | | | | *2,840 | *2,840 | 42.9 ft | |
| | -6.0 m kg | *5,540 | *5,540 | *6,580 | *6,580 | *8,720 | 6,560 | *6,920 | 4,270 | 5,260 | 3,110 | 4,060 | 2,420 | 3,290 | 1,960 | *2,440 | 1,640 | | | | | | *1,550 | *1,550 | 12.3 m | |
| | -20 ft lb | *12,400 | *12,400 | *14,810 | *14,810 | *19,760 | 14,140 | *14,970 | 9,210 | 11,350 | 6,720 | 8,780 | 5,220 | 7,110 | 4,230 | *3,630 | 3,560 | | | | | | *3,480 | *3,480 | 40.1 ft | |
| | -7.5 m kg | *6,650 | *6,650 | *7,940 | *7,940 | *8,470 | 6,750 | *6,480 | 4,380 | *5,170 | 3,180 | 4,120 | 2,470 | 3,360 | 2,020 | | | | | | | | *2,020 | 1,870 | 11.2 m | |
| | -25 ft lb | *14,910 | *14,910 | *17,910 | *17,910 | *18,260 | 14,560 | *13,970 | 9,460 | *11,130 | 6,880 | 8,920 | 5,360 | 7,270 | 4,390 | | | | | | | | *4,580 | 4,200 | 36.3 ft | |
| | -9.0 m kg | | | *9,540 | *9,540 | *7,360 | 7,030 | *5,720 | 4,560 | *4,560 | 3,320 | *3,640 | 2,600 | | | | | | | | | | *3,000 | 2,380 | 9.7 m | |
| | -30 ft lb | | | *21,570 | *15,740 | 15,190 | *12,210 | 9,870 | *9,710 | 7,210 | *7,650 | 5,670 | | | | | | | | | | | *6,950 | 5,390 | 31.3 ft | |
| -10.5 m kg | | | | *5,640 | *5,640 | *4,400 | *4,400 | *3,360 | *3,360 | | | | | | | | | | | | | *3,240 | *3,240 | 7.7 m | | |
| -35 ft lb | | | | *9,110 | | | | | | | | | | | | | | | | | | *7,130 | *7,130 | 24.2 ft | | |

Notes: 1. Machine in "Fine Mode-F" (Power Boost) for lifting capacities. 2. The above loads are in compliance with SAE J1097 and ISO 10567 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.

Equipment

STANDARD AND OPTIONAL EQUIPMENT

• = Standard / o = Optional

Engine

| | |
|--|---|
| Turbocharged, 4 stroke diesel engine with water cooling, direct injection and charged air cooler that meets Tier 4f requirements | • |
| Electric cooling fan system | • |
| New work mode with 10 steps | • |
| Cyclone pre-cleaner | • |
| Fuel shut off valve | • |
| Engine block heater | o |
| Coolant heater by diesel | o |
| Reversible fan drive | o |
| Precleaner, oil bath | o |
| Air filter, High efficiency | o |
| Delayed engine shutdown | • |
| Automatic engine shutdown | o |
| Water separator with heater | o |
| Arctic regeneration | o |
| Regeneration control | o |
| Oil sampling port for engine oil | o |

Electric / Electronic control system

| | |
|--|---|
| Anti-theft with code lock system | • |
| Alternator, 180 A | • |
| Automatic idling system | • |
| Lock Out / Tag Out function on battery main switch | • |
| Standard light | • |
| Basic light package | o |
| Advanced light package | o |
| Deluxe light package | o |
| Arm light | o |
| LH light | o |

Undercarriage and structures

| | |
|---|---|
| 3-point side access | • |
| Link 600 mm (24") single grouser shoe | o |
| Link 600 mm (24") add rubber pad shoe | o |
| Direct filling DEF (AdBlue) / Sight gauge and splash guard | • |
| Openable 1 piece hood | • |
| Link 700 mm (28") double grouser shoe | o |
| Platform handrail fixed & Guardrail, foldable | • |
| Full track guard | o |
| Counterweight 5,400 kg (10,900 lb) | o |
| Inner rail | • |
| SIPS (Side Impact Protection Steel) | o |
| HD Side door & hood with screen | o |
| Without lower structure | o |
| Lower frame NL, N, NH, High walker | o |
| Link 500/600/700/800/900 mm (20/24/28/32/36") triple grouser shoe | o |
| Link 600 mm (24") triple grouser shoe, HD | o |

STANDARD AND OPTIONAL EQUIPMENT

• = Standard / o = Optional

Hydraulic system

| | |
|---|---|
| EH-positive (Electro-Hydraulic) control system | • |
| Boom up & swing priority | • |
| Auto warm up | • |
| Auto power boost | • |
| One touch power boost | • |
| Priority Adjustment | • |
| Boom down speed control | • |
| Shock reduction function | • |
| Joystick, 4 switch / 4 switch & 1 proportional / Simple L8 / L8 | o |
| Hydraulic oil mineral, 32 / 46 / 68 | o |
| Longlife hyd oil mineral, 32 / 46 / 68 | o |
| Hydraulic oil bio 46 | o |
| Pattern change | • |
| Boom float function | • |
| Straight travel pedal | o |
| Comfort driving control | o |
| Creep mode | • |
| Dedicated drain line | o |
| Variable X3 P-Q control | o |
| Hose rupture valve for boom | o |
| Hose rupture valve for arm | o |
| X1/X3/QF Piping on Long Reach Boom & Arm | o |

Cab and interior

| | |
|--|---|
| Keyless engine start and stop | • |
| 8" HD display | • |
| ROPS certified cab | • |
| Tiltable left console | • |
| Digital hour meter | • |
| Wireless mobile charger with Kinematic sensor package option | • |
| Various storage space with cool/heated | • |
| Cleaning air gun preparation | o |
| 1 piece wind shield cab | o |
| High visibility cab | o |
| Cabin large mirror | o |
| Cabin large mirror, Heated | o |
| Basic / Premium / Deluxe seat | o |
| Seat belt, 2 inch 2 point / 3 inch 2 point / 3 inch 3 point | o |
| Climate control-HEPA filter | o |
| Radio with MP3/USB/Bluetooth | o |
| Front rain shield | o |
| Sun screen | • |
| Lower wiper | o |
| Sun shield, roof hatch | o |
| Foot rest, High mount | o |
| FOG (Falling Object Guard) | o |
| FOPS (Falling Object Protection Structure) | o |
| Safety net | o |

STANDARD AND OPTIONAL EQUIPMENT

• = Standard / o = Optional

Digging equipment

| | |
|---|---|
| GP 5.7 m (18'8") boom | • |
| HD 5.7 m (18'8") boom / VA 5.57 m (18'3") boom / LR 8.85 m (29'0") boom | o |
| HD 2.9 m (9'6") arm | • |
| GP 2.9 m (9'6") arm/ ME 2.0 m (6'7") arm/ HD 2.5 m (8'2") arm/ GP 3.5 m (11'6") arm | o |

Machine controls

| | |
|---|---|
| Kinematic sensor package | • |
| Volvo Co-Pilot 2nd display, 12.8" touchable Full HD | • |
| Dig Assist, Start | • |
| Dig Assist, 2D | o |
| Dig Assist, In-Field Design | o |
| Dig Assist, Topcon 3D-MC | o |
| Dig Assist, Trimble Earthworks | o |
| Dig Assist, Infield-Design Advanced | o |
| Dig Assist, On-Board Weighing | o |
| Dig Assist, Laser Receiver | • |
| Volvo Active Control | o |
| Dig Assist, Boundary Limit | • |

Service and maintenance

| | |
|-------------------------------------|---|
| Fuel level gauge | • |
| Swing out A/C condenser | • |
| Fuel filler pump | o |
| Quick Hydraulic Oil Fill connection | o |
| Quick Engine Oil Change | o |
| Jump start connector | o |
| Auto lubrication system | o |
| Tool kit | o |

Safety and security

| | |
|---|---|
| Travel alarm, beep / white noise | o |
| Flashing beacon, LED | o |
| Green light beacon | o |
| Rear view camera | • |
| Side view camera | o |
| HD VSV (Volvo Smart View) | o |
| HD VSV with obstacle detection | o |
| Provision, HD VSV with obstacle detection | • |

V O L V O

VOLVO

Volvo Construction Equipment North America Warranty – Disclaimers – Limitations Limited Warranty for Governmental / Municipalities

Volvo Construction Equipment North America (“Volvo CE”) hereby extends to its authorized dealers (“Dealer”) and the Dealer’s Governmental / Municipalities customers (“Customer”, and both Dealer and Customer are referred to herein as a “Buyer”), who purchase a new Volvo construction equipment machine (“Machine”) or new Volvo part (“Part”, both of which are referred to herein as a “Product”) from Volvo, the following limited warranty:

Subject to the exceptions and limitations set forth below, Volvo CE or Dealer will repair or replace any part of a new Machine or new Part which proves to be defective in material or workmanship during the following periods (the “Warranty Period”):

- Volvo wheel loaders: 12 months/2500 hours, whichever first occurs
- Volvo articulated haulers: 12 months/2500 hours, whichever first occurs
- Volvo hydraulic excavators: 12 months/2500 hours, whichever first occurs
- Volvo motor graders: 12 months/2500 hours, whichever first occurs
- Volvo compactors: 12 months/1500 hours, whichever first occurs
24 months unlimited hours on DD90 and larger compactors
- Volvo pavers: 12 months/1500 hours, whichever first occurs
24 months unlimited hours on 6000 / 7000 series pavers
- Volvo milling: 12 months/1500 hours, whichever first occurs
- Volvo compact wheel loaders (up to 100 net hp.): 12 months/unlimited hours
- Volvo skid steer loaders: 12 months/unlimited hours; Lifetime arm for one-sided
- Volvo compact hydraulic excavators (less than 11 metric tons): 12 months/unlimited hours
- Volvo backhoe loaders: 12 months/unlimited hours
- Volvo engines: 12 months/2500 hours, whichever first occurs
- Volvo parts: 6 months/1500 hours, whichever first occurs
- Volvo remanufactured components: 12 months/2500 hours, whichever first occurs
- Volvo Attachments: 12 months

The Warranty Period commences immediately following the delivery of said Product to the Buyer who first puts said Product into use. The foregoing limited warranty shall include the labor cost to accomplish the repair or replacement of the defective part provided that the repair or replacement was performed by a Dealer.

The foregoing warranty does not cover: (i) any Product found to have been damaged by abuse, accident, other casualty or a failure to maintain or use the warranted Product in accordance with the applicable manuals or instructions (Buyer is required to use only original equipment manufacturer filters during the Warranty Period); (ii) the labor costs to repair or replace defective Parts after the expiration of the Warranty Period of the Machine in which such Part is located; (iii) overtime labor premiums; (iv) costs and expenses associated with the transportation of Dealer’s service personnel to and from the location of the warranted Product; (v) any parts, components, attachments or accessories for which Buyer receives a separate warranty by the manufacturer or producer thereof (in specified cases said warranty may be administered by Volvo CE); (vi) maintenance items or ground engaging parts that have achieved their normal service life.

DISCLAIMER OF IMPLIED WARRANTIES AND LIMITATION OF REMEDIES

THE FOREGOING WARRANTY TO BUYER IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND THERE IS NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

REMEDIES AVAILABLE TO BUYER ARE LIMITED TO MAKING A CLAIM UNDER THE FOREGOING WARRANTY AND ARE EXCLUSIVE AND EXPRESSLY LIMITED TO OBTAINING THE PARTS AND LABOR IN ACCORDANCE WITH THE TERMS OF SAID WARRANTY.

Warranty – Disclaimers – Limitations

LIMITATIONS OF LIABILITY AND DAMAGES

Regardless of whether a claim against Volvo CE or Dealer is based on the foregoing warranty or is an action in contract, tort (negligence or strict liability) or otherwise, their respective liability for losses, damages or expenses of any kind arising from the design, manufacture, repair or sale of the Products is limited, unless otherwise prohibited by law, to an amount not exceeding the cost performing the obligations contained in the foregoing warranty, and in no event shall their respective or joint liability exceed the value of the Product or part thereof giving rise to such liability.

CONSEQUENTIAL AND SIMILAR DAMAGES NOT RECOVERABLE

Except for performing the obligations of the foregoing warranty in accordance with its terms, Volvo CE and Dealer shall have no liability for loss, damage, or expense, directly or indirectly, attributable to a loss of use of a Product, loss or damage to property other than the Product, loss or damage to the Product or any part thereof or any other economic or commercial loss, including, without limitation, lost profits or special or consequential damages (except liability for any type of consequential damages which by law may not be disclaimed). The parties intend that this prohibition against consequential and similar damages will survive and be effective even if the limitation of remedies in the foregoing sections is found to fail of its essential purpose under section 2-719 of the Uniform Commercial Code.

ALLOCATION OF RISK

The foregoing warranty disclaimers, limitations of liability and limitation of remedies are bargained allocations of risks among (i) the Customer who purchased the Product; (ii) the Dealer who sold the Product, and (iii) Volvo CE, which is a third party beneficiary of the contract of sale between the Customer and the Dealer. The Buyer of the Product accepts the foregoing warranty and the other bargained for allocations of risk as part of the agreed price for the purchase of the Product to which the foregoing warranty applies. Volvo CE is prepared to offer different warranties and other allocations of risk for other prices. However, any such change in the warranty or the allocation of risks must be confirmed in writing by Volvo CE.

STATUTE OF LIMITATIONS

Any action by a Buyer of a Product for breach of contract, for breach of warranty arising under, or for a cause of action arising out of the sale of a Product, whether based on contract, tort (negligence or strict liability) or otherwise, shall be commenced within one (1) year after the cause of action has accrued. Any such cause of action shall be deemed to have accrued at the earlier of (i) the discovery of the defect or breach, or (ii) the expiration of the applicable Warranty Period.

| Sales Code | Description | MSRP |
|------------|--|------------------|
| EC230FL5 | Volvo EC230FL5 Crawler Excavator | 201880.5 |
| XC10116 | Boom, 18' 8" (5.7m), GP | 17670 |
| XC10222 | Arm, 9' 6" (2.9m), HD | 10244.25 |
| XC10403 | Linkage with lifting eye, GP | 581.25 |
| XC10503 | Decal Kit NA | 0 |
| XC10756 | Oil sampling ports | 417 |
| XC20106 | Track Pads, 32" Triple Grouser | 12408 |
| XC20201 | Roller guard STD | 502.5 |
| XC20302 | Lower frame - foldable steps | 0 |
| XC20402 | Belly Cover HD, 10mm | 350.25 |
| XC30101 | Engine NA | 0 |
| XC30801 | Standard fan drive | 0 |
| XC30352 | Fuel tank for Guardrail | 0 |
| XC30401 | Air precleaner, Cyclone | 125.25 |
| XC30408 | Air filter, std | 0 |
| XC30606 | Water separator without heater | 300 |
| XC30910 | Quick Hyd Oil Fill connection | 0 |
| XC30911 | Quick Engine Oil Change | 0 |
| XC30902 | Delayed engine Shutdown | 174.75 |
| XC40103 | CareCab w/ Opening Hatch | 507.75 |
| XC40141 | Cabin large mirror | 56.25 |
| XC40215 | Premium seat | 1926.75 |
| XC41202 | Seat belt, 3 inch | 0 |
| XC40302 | DigAssist, Boundary Limit | 0 |
| XC40409 | Joystick, 4 switch & 1 prop | 0 |
| XC40502 | Air conditioning, ACC (automatic climate control) | 2834.25 |
| XC40602 | Universal key | 0 |
| XC40809 | Foot rest, High mount | 0 |
| XC40810 | Sun screen, front/roof/rear/right | 243.75 |
| XC50051 | Advanced light package | 738.75 |
| XC50102 | Travel alarm | 0 |
| XC50153 | Kinematic sensor package | 0 |
| XC50154 | Volvo Co-Pilot 2nd gen.display | 0 |
| XC50155 | Dig Assist Start | 0 |
| XC50159 | Dig Assist, Laser Receiver | 0 |
| XC50162 | Provision, Obstacle detection | 0 |
| XC50163 | HD VSV(Volvo Smart View) | 0 |
| XC50401 | Caretrack GSM/GPS | 0 |
| XC50808 | Platform guardrail, foldable | 0 |
| XC60102 | Hydraulic oil ISO VG46 | 692.25 |
| XC61301 | Pre-setting for hyd. pressure (piping not installed for long reach boom and arm) | 209.25 |
| XC60203 | X1 2 pump double acting piping (piping not installed for long reach boom and arm) | 4173 |
| XC60220 | X1 3 way valve on arm | 254.25 |
| XC60301 | X1 additional return filter (piping not installed for long reach boom and arm) | 431.25 |
| XC60602 | X1 Roll switch control, proportional, double acting (piping not installed for long reach boom and ar | 336.75 |
| XC60605 | X1 Pedal control, Proportional (piping not installed for long reach boom and arm) | 167.25 |
| XC60805 | Quick fit piping, UQF (piping not installed for long reach boom and arm) | 1532.25 |
| XC60904 | Straight travel pedal | 1434 |
| XC60906 | Boom float function | 1091.25 |
| XC60914 | Pattern change | 1591.5 |
| XC60917 | Creep mode | 0 |
| XC70302 | Manual, English | 0 |
| XC80119 | CWT 4600kg, Fabrication | 4875 |
| XC80202 | Under cover HD, 4.5mm superstructure | 0 |
| XC70501 | Frame lifetime guarantee | 0 |
| XC8291357 | Less bucket with pins | 0 |
| | | |
| | MSRP Total | \$267,749 |



Company ID Number: 505216

THE E-VERIFY PROGRAM FOR EMPLOYMENT VERIFICATION
MEMORANDUM OF UNDERSTANDING

ARTICLE I

PURPOSE AND AUTHORITY

This Memorandum of Understanding (MOU) sets forth the points of agreement between the Department of Homeland Security (DHS) and Cowin Equipment Co Inc (Employer) regarding the Employer's participation in the Employment Eligibility Verification Program (E-Verify). This MOU explains certain features of the E-Verify program and enumerates specific responsibilities of DHS, the Social Security Administration (SSA), and the Employer. E-Verify is a program that electronically confirms an employee's eligibility to work in the United States after completion of the Employment Eligibility Verification Form (Form I-9). For covered government contractors, E-Verify is used to verify the employment eligibility of all newly hired employees and all existing employees assigned to Federal contracts or to verify the entire workforce if the contractor so chooses.

Authority for the E-Verify program is found in Title IV, Subtitle A, of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), Pub. L. 104-208, 110 Stat. 3009, as amended (8 U.S.C. § 1324a note). Authority for use of the E-Verify program by Federal contractors and subcontractors covered by the terms of Subpart 22.18, "Employment Eligibility Verification", of the Federal Acquisition Regulation (FAR) (hereinafter referred to in this MOU as a "Federal contractor with the FAR E-Verify clause") to verify the employment eligibility of certain employees working on Federal contracts is also found in Subpart 22.18 and in Executive Order 12989, as amended.

ARTICLE II

FUNCTIONS TO BE PERFORMED

A. RESPONSIBILITIES OF SSA

1. SSA agrees to provide the Employer with available information that allows the Employer to confirm the accuracy of Social Security Numbers provided by all employees verified under this MOU and the employment authorization of U.S. citizens.
2. SSA agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. SSA agrees to provide the Employer with names, titles, addresses, and telephone numbers of SSA representatives to be contacted during the E-Verify process.
3. SSA agrees to safeguard the information provided by the Employer through the E-Verify program procedures, and to limit access to such information, as is appropriate by law, to individuals responsible for the verification of Social Security Numbers and for evaluation of the E-Verify program or such other persons or entities who may be authorized by SSA as governed

E-Verify



Company ID Number: 505216

To be accepted as a participant in E-Verify, you should only sign the Employer's Section of the signature page. If you have any questions, contact E-Verify at 888-464-4218.

| | |
|--|------------|
| Employer Cowin Equipment Co Inc | |
| Tracy Womack | |
| Name (Please Type or Print) | Title |
| <i>Electronically Signed</i> | 02/15/2012 |
| Signature | Date |

Department of Homeland Security – Verification Division

USCIS Verification Division

| | | |
|------------------------------|--|------------|
| Name (Please Type or Print) | | Title |
| <i>Electronically Signed</i> | | 02/15/2012 |
| Signature | | Date |

Information Required for the E-Verify Program

Information relating to your Company:

| | |
|---------------------------------|--|
| Company Name: | Cowin Equipment Co Inc |
| Company Facility Address: | 2238 Pinson Valley Parkway Birmingham, AL 35217 |
| Company Alternate Address: | PO Box 10624 Birmingham, AL 35202 |
| County or Parish: | JEFFERSON |
| Employer Identification Number: | 630141942 |

Company ID Number: 475502

**E-VERIFY
CORPORATE COMPANY**

**If you have any questions, contact E-Verify at
888-464-4218.**

| INFORMATION REQUIRED FOR E-VERIFY | |
|--|--|
| Information relating to your Company: | |
| Company Name: | <u>Cowin Equipment Company Inc</u> |
| Company Facility Address: | <u>2238 Pinson Valley Parkway</u> <u>Birmingham, AL 35217</u> |
| County or Parish: | <u>JEFFERSON</u> |

Information relating to the Corporate Administrator(s) for your Company on policy questions or operational problems:

| | | | |
|-------------------|--------------------------|-------------|-------------------------|
| Name: | George Tickle | Fax Number: | (205) 841 - 2639 |
| Telephone Number: | (205) 488 - 3950 | | |
| E-mail Address: | gtickle@cowin.com | | |
| Name: | Tracy Womack | Fax Number: | (205) 488 - 3164 |
| Telephone Number: | (205) 488 - 3959 | | |
| E-mail Address: | twomack@cowin.com | | |

INVITATION TO BID HEAVY EQUIPMENT

NOTICE OF BID OPENING

NOTICE IS HEREBY GIVEN that the Association of County Commissions of Alabama, which administers the Alabama County Joint Bid Program on behalf of Alabama's county governing bodies, shall receive and open bids for the purchase of zero (0) or more items of heavy road equipment at its office located at 2 North Jackson Street, Montgomery, Alabama, at **10:00 a.m. on Friday, November 1, 2024**. Bid specifications are available at <http://www.alabamacounties.org/heavy-equipment/> for each of the following items:

Track Mount Excavators
Compact Track Mount Excavators
Mini Track Excavator
Wheeled Excavator
Highway Speed Truck Excavators
Motor Grader
Wheel Loader
Heavy Duty Dump Chassis
Lowboy Tractor

Lowboy Trailer
Skid Steer and Attachments
Ride-on Industrial Boom Mowers
Rubber Tire Roller
One-man Pothole Patchers
Trailer Mount Mastic Patcher/Crack Sealer
Chip Spreader
Asphalt Distributor

Time is of the essence in submitting bids and only bids received in the Association office by 10:00 a.m. Central Time on Friday, November 1, 2024 will be opened and considered. Bidders and any other interested individuals are invited to attend the bid opening.

NOTICE OF BID OPENING PROCEDURES

All bids for **Heavy Equipment** will be opened and the name(s) of the bidders read aloud on the morning of the bid opening on **Friday, November 1, 2024 at 10:00 a.m.** at 2 North Jackson Street, Montgomery, AL. The specifics of each bid submitted will be compiled by the Association staff thereafter and will be available, **upon written or emailed request**, one week after the bid opening. Requests should be emailed to jointbid@alabamacounties.org.

THE INVITATION PACKAGE

The invitation package for each item to be bid includes: this invitation to bid, the written bid specifications for the particular item of heavy road equipment, and a Bid Submittal Form to be used in submitting a bid for that particular item. Bidders should verify that they have received all pages of the invitation package. If there are any omissions, the bidder should contact **Kenya Howard** in the Association office by mail, fax, or e-mail (jointbid@alabamacounties.org) to request missing pages. It is the responsibility of the bidder to make this request in sufficient time to prepare and submit the bid in time for the bid opening. Bidders should carefully read and comply with all parts of the invitation package, including all attachments and/or any addendum.

PREPARING AND SUBMITTING BIDS

All bids must be typed or hand written in ink on the attached Bid Submittal Form. **The completed Bid Submittal Form shall be placed in front of and separated from all other documents included in the bid packet, such that it will be the first document viewed upon opening the bid packet.**

Bids submitted in pencil and bids not submitted on the Bid Submittal Form **will not** be considered. All bids shall include a current catalog or model specification document for the equipment model number being offered for consideration. Bids submitted without such documentation **will not** be considered. Only information contained on the attached Bid Submittal Form and in the model specification document will be considered in evaluating bids.

Each separate requirement in the bid specification includes a block for indicating whether or not the item bid meets the specification. The bidder shall indicate compliance with each requirement by checking "Yes" or "No" in the block to the right of each bid specification. In addition, the bidder shall indicate the page number in the supplied manufacturer's equipment literature on which compliance with the specification can be verified. Failure to complete this portion of the bid form may result in the subject bid not being considered.

Each bid for one of the heavy equipment items included in the bid package must be submitted on the Bid Submittal Form for that item and forwarded in a separate envelope with the bid item and item number clearly identified on the outside of the envelope. Envelopes containing a "no bid" shall also include the words "NO BID" on the outside of the envelope. Facsimiles and e-mails will not be accepted. Bids submitted by "Express/Overnight" services must be in a separate inner envelope or package sealed and identified as stated above. All bids must be received in the Association office prior to the bid opening. Bids received after the deadline will be returned unopened.

The County Joint Bid Program reserves the right to require a performance bond from successful bidders as permitted under Alabama law. However, **no bid bond is required for this bid offering.**

All bids should be mailed or hand-delivered to:

ATTN: Patrick McDougald
Association of County Commissions of Alabama or ACCA
2 North Jackson Street, FL 7, Montgomery, Alabama 36104 (Physical Address)
P.O. Box 5040, Montgomery, Alabama 36103 (Mailing Address)

BID SPECIFICATIONS

Please note that each piece of heavy equipment available for bid may include several different sizes and categories of machines. You should read each set of specifications very carefully as the differences vary depending upon the piece and size of equipment.

The award will be based on the total cost of the **Standard Machine** bid by the lowest responsible bidder. Each Bid shall include a **Manufacturer's Suggested Retail Price Sheet (MSRP)** for each machine bid. The percent difference between the Manufacturer's Suggested Retail Price (MSRP) for the standard machine as specified by these bid specifications and the actual price bid by the vendor will be calculated and that percentage discount shall be applied to any options an individual county may choose to add to the machine.

Once the bids have been awarded, any county participant purchasing under this program may, at its discretion, add any of the vendor's available options at the same discount off the Manufacturer's Suggested Retail Price Sheet as was applied to the Standard Machine Price Bid.

Any use of specific names and/or model numbers in the attached specifications is not intended to restrict the bidder or any seller or manufacturer, but is included solely for the purpose of indicating the type, size, and quality of materials, product services, or equipment considered best adapted to the use of the counties participating in the joint bid program.

ACQUISITION AND FINANCING OPTIONS

The awarded Vendor will provide the equipment, including any options required by the purchaser, at the awarded price as contracted through the Joint Bid Program. The purchaser may secure its own financing to acquire the equipment or execute any financial options available under Alabama law with the awarded Vendor in order to acquire the equipment.

BIDDER QUALIFICATIONS

All bidders and all program participants must be in compliance with any applicable federal, state, county and municipal laws, regulations, resolutions and ordinances, including but not limited to, licensing, permitting, and taxation requirements. All bidders should be prepared to submit evidence or documentation as proof that they are properly licensed and permitted under any applicable laws upon request. Such evidence or documentation may be submitted with the bid. Additionally, all bidders shall provide proof that they are in compliance with the E-Verify requirements of Alabama's Immigration Law (Ala. Code § 31-13-1 et seq., as amended by Act No. 2012-491).

BID AWARD

The Houston County Commission will serve as the awarding authority for all bids and will award all contracts at a regular meeting of the Houston County Commission. Any and all bids submitted in compliance with this invitation to bid shall be considered, and award will be made to the lowest responsible bidder meeting bid specifications as determined by the awarding authority in compliance with Alabama law. All bids will be reviewed and evaluated by a committee created for that purpose, which committee will make comments and recommendations to the awarding authority regarding the award. All factors contained in each invitation package will be evaluated in determining the successful bidder, and any omissions of the stated requirements may be cause for rejection of the bid submitted. The awarding authority reserves the right to reject any and all bids, to waive any informality in bids, and to accept in whole or in part such bid or bids solely at its discretion.

The contract period will be one year with an option to renew for a second and third year under identical price, terms, and conditions upon the mutual consent of the vendor and the awarding authority. Any renewal contract shall be approved in writing by the vendor and the awarding authority no later than 90 days prior to the expiration of the existing contract.

CONTACT REGARDING BIDS AND INVITATION

Contact initiated by a potential bidder with any county official, county employee, or member of the Association staff shall only be as specifically set out in this Invitation to Bid. Any questions related to the bid or the County Joint Bid Program shall be directed to Association staff in writing under the procedures set out in this Invitation to Bid. Additionally, a bidder may contact the Association in writing to request an appointment to review bid specifications following the bid opening. **However, there shall be no communication with any county official or county employee regarding this bid between the date of this invitation and the date of bid award.** Any contact other than as set out here shall be deemed as an attempt to unduly influence the bid award, and shall be grounds for rejection of the bid submitted by the bidder initiating such other contact.

Any questions or problems related to downloading or obtaining copies of this Invitation to Bid should be directed to **Kenya Howard** at jointbid@alabamacounties.org or **334-263-7594**.

Any other questions or requests for additional information regarding this invitation or the bid specifications shall be submitted in **writing** no later than five (5) days prior to bid opening to:

ATTN: Patrick McDougald
Association of County Commissions of Alabama
P.O. Box 5040
Montgomery, Alabama 36104

OR

Patrick McDougald
Email: pattymackdaddy@gmail.com