

BID SUBMITTAL FORM
Alabama County Joint Bidding Program
Heavy Equipment – Bid Item: Compact Track Excavator Option D-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: o-334-262-6642 C- 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 Jan. 1, 2021 to Dec. 31, 2021.

JE

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

JE

The company acknowledges the freight preparation and delivery price is to be included in the total bid price for the standard machine.

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

Total Bid Price for Standard Machine: \$ \$88,507.00

(Total Bid Price for Standard Machine Includes Freight Preparation, Delivery and Standard Warranty Costs) *

Freight Preparation and Delivery: \$ \$1,000.00

(Included in Standard Machine Bid Price)

Manufacturer's Suggested Retail Price for Standard Machine: \$ \$106,035.00

Equipment Model #: Volvo ECR88D

Description: Volvo Compact 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

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*

J.E

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

JE

Equipment Model #: Volvo ECR88D

Description: Volvo Compact 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.

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, September 4, 2020. Bid specifications are available at <http://www.alabamacounties.org/heavy-equipment/> for each of the following items:

Light Duty Backhoe
Medium Duty Backhoe
Heavy Duty Backhoe Option A
Heavy Duty Backhoe Option C
85 PTO Tractor Option A
85 PTO Tractor Option B
95 PTO Tractor Option A
95 PTO Tractor Option B
Track Mount Excavator Option A-1
Track Mount Excavator Option A-2
Track Mount Excavator Option A-3
Track Mount Excavator Option B-1
Track Mount Excavator Option B-2
Track Mount Excavator Option B-3
Track Mount Excavator Option C-1
Track Mount Excavator Option C-2
19 Ton Wheeled Excavator
21 Ton Wheeled Excavator
Compact Track Mount Excavator Option D-1
Compact Track Mount Excavator Option D-2
Light Duty Motorgrader – Option A
Light Duty Motorgrader – Option B
Heavy Duty Motorgrader – Option A
Heavy Duty Motorgrader – Option B
Medium Duty Motorgrader – Option A
Medium Duty Motorgrader – Option B
Medium Duty Motorgrader – AWD
Light Duty Motorgrader – Option B

100 HP Heavy Duty Hydrostatic Bulldozer –Option B
100 HP Heavy Duty Hydrostatic Bulldozer – Option C
100 HP Heavy Duty Hydrostatic Bulldozer – Option D
125 HP Heavy Duty Hydrostatic Bulldozer – Option A
125 HP Heavy Duty Hydrostatic Bulldozer – Option B
Mulching Dozer
3 CY Wheel Loader Option A
3 CY Wheel Loader Option B
3 CY Wheel Loader Option C
3.65 CY Wheel Loader Option A
3.65 CY Wheel Loader Option B
Heavy Duty Dump Chassis – Option B
Heavy Duty Dump Chassis – Option C
Heavy Duty Dump Chassis – Option E
Lowboy Tractor Option – B
Lowboy Tractor Option – C
Lowboy Tractor Option – D
Skid Steer Attachments
Ride-on Industrial Boom Mower
Telescopic Boom Cutter 75 FT. Reach
Telescopic Boom Cutter 55 FT. Reach
Asphalt Distributor Truck
Chip Spreader
Rubber Tire Roller
One-man Pothole Patcher Option A
2WD Highway Speed Truck Excavator
4WD Highway Speed Truck Excavator

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, September 4, 2020 will be opened and considered. Bidders and any other interested individuals are invited to attend the bid opening.

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:

Association of County Commissions of Alabama	
Attention: JOINT BID PROGRAM	Attention: JOINT BID PROGRAM
2 North Jackson Street	OR P.O. Box 5040
Montgomery, Alabama 36104	Montgomery, Alabama 36103

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: Chase Cobb
Association of County Commissions of Alabama
P.O. Box 5040
Montgomery, Alabama 36103
E-mail: ccobb@alabamacounties.org

BID SPECIFICATIONS FOR COMPACT TRACK-MOUNTED HYDRAULIC EXCAVATOR Option D-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 18,000 lbs.

Yes ☒ No ☐
Page # 18

Four (4) cylinders, minimum 160 cubic inch diesel engine with minimum 50 net flywheel horsepower.

Yes ☒ No ☐
Page # 16

UNDERCARRIAGE

Track length shall be minimum 9'

Yes ☒ No ☐
Page # 17

Track shoe width shall be minimum 17".

Yes ☒ No ☐
Page # 17

Minimum five (5) track rollers per side.

Yes ☒ No ☐
Page # 16

Minimum one (1) carrier rollers per side.

Yes ☒ No ☐
Page # 16

Unit shall be equipped with steel tracks with rubber track pads.

Yes ☒ No ☐
Page # 16,22

CAPACITIES

Fuel Tank Capacity – 29 gallon minimum

Yes ☒ No ☐
Page # 16

Hydraulic Tank Capacity – 14 gallon minimum

Yes ☒ No ☐
Page # 16

Engine Coolant – 2 gallon minimum

Yes ☒ No ☐
Page # 16

BOOM AND STICK

One-piece boom with minimum 11' length

Yes ☒ No ☐
Page # 18

Stick shall be a minimum 5.5' long

Yes ☒ No ☐
Page # 18

DIMENSIONS

Reach at ground level – 22' 0" minimum

Yes ☒ No ☐
Page # 19

Bucket breakout force – minimum 10,000 lbs.

Yes ☒ No ☐
Page # 19

Stick digging force – minimum 6,500 lbs.

Yes ☒ No ☐
Page # 19

BUCKET

Standard 18" bucket

Yes ☒ No ☐
Page # option

HYDRAULICS

Hydraulic pump output shall be a minimum of 40 GPM

Yes ☒ No ☐
Page # 16

Blade

Blade width – minimum 7.5'

Yes ☒ No ☐
Page # 18

Blade height – minimum 14"

Yes ☒ No ☐
Page # 18

CAB

Enclosed ROPS cab:

Heater

Yes ☒ No ☐
Page # 22

Factory installed air conditioning

Yes ☒ No ☐
Page # 22

AM/FM radio

Yes ☒ No ☐
Page # 22

Defroster

Yes ☒ No ☐
Page # 8,22

ACCA

Volvo Construction Equipment



John Edwards
Governmental Sales Manager
850-685-7055
jedwards@cowin.com

ECR88D

Volvo Excavators 8.6-9.5 t / 19,010-20,950 lb 58 hp



A passion for performance

At Volvo Construction Equipment, we're not just coming along for the ride. Developing products and services that raise productivity – we are confident we can lower costs and increase profits for customers around the globe. Part of the Volvo Group, we are passionate about innovative solutions to help you work smarter – not harder.

Helping you to do more

Doing more with less is a trademark of Volvo Construction Equipment. High productivity has long been married to low energy consumption, ease of use and durability. When it comes to lowering life-cycle costs, Volvo is in a class of its own.

Designed to fit your needs

There is a lot riding on creating solutions that are suited to the particular needs of different industry applications. Innovation often involves high technology – but it doesn't always have to. Some of our best ideas have been simple, based on a clear and deep understanding of our customers' working lives.



You learn a lot in 180 years

Over the years, Volvo has advanced solutions that have revolutionized the use of construction equipment. No other name speaks Safety louder than Volvo. Protecting operators, those around them and minimizing our environmental impact are traditional values that continue to shape our product design philosophy.

We're on your side

We back the Volvo brand with the best people. Volvo is truly a global enterprise, one that is on standby to support customers quickly and efficiently – wherever they are.

We have a passion for performance.

A strong, dedicated, capable dealer network

Our dealers are strategically located throughout North America to provide the equipment you need and the parts and service support you demand for a productive and profitable operation.

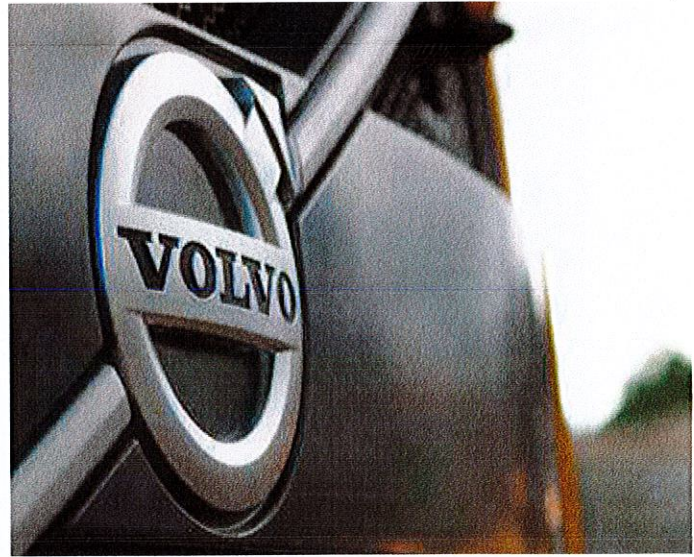
The strength of our dealer network is enhanced with extensive individualized product support training at our best-in-class Customer Center in Shippensburg and through hands-on training. Using a great Product Demonstration Center featuring a dedicated area for most common applications, visitors operate equipment from our entire product line under a variety of simulated working conditions. This facility is in year-round use by our dealers and customers.

Building the best starts right here.

The products designed and manufactured by Volvo Construction Equipment have their beginnings at the most advanced Research & Design centers in the industry. Volvo CE machines are designed in 11 R&D centers and produced in 15 manufacturing facilities across the world.

The major R&D center and manufacturing plant in the Americas is located in Shippensburg, Pennsylvania. This facility has been in operation for over 30 years and – with its recently added 200,000 sq. ft. expansion – now covers 570,000 sq. ft. on an 80 acre campus. Dedicated work teams and highly advanced technologies and techniques using the Volvo Production System ensure continuous quality improvements, labor savings and cost control to reach the high quality that our customers have come to expect from Volvo.

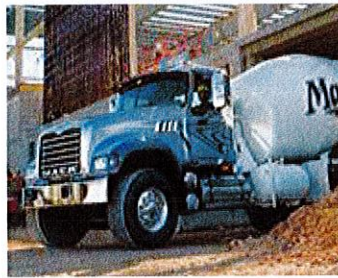




Volvo Trucks



Renault Trucks



Mack Trucks



UD Trucks



Volvo Buses



Volvo Construction Equipment



Volvo Penta



Volvo Financial Services

Powered to perform

Volvo proudly introduces the new ECR88D compact short swing radius excavator. Featuring a powerful Volvo engine and perfectly matched hydraulic system, this machine delivers high performance, excellent control and low fuel consumption. Sustain optimum power and productivity with Volvo.

Volvo engine

Volvo's premium Tier 4f / Stage V engine delivers superior performance and low fuel consumption. The engine features an Exhaust After Treatment System (EATS) to lower emissions and a regeneration process that does not interrupt operation, performance or productivity.



Slew and boom offset

Slew and boom offset movements are controlled simultaneously for easy and fast positioning of the machine. Joystick control enables precise, smooth and effortless command of the slew and boom offset.



Tractive force

High system pressure delivers impressive tractive force when climbing gradients or traveling over rough terrain. For improved performance, the ECR88D boasts a 16% improvement in tractive force compared to the previous model.





ENHANCED HYDRAULICS

Volvo's state-of-the-art hydraulic system is perfectly matched to the Volvo engine and components – delivering high performance and improved fuel efficiency. The hydraulic system has been designed for fast response and smooth operation.



STABILITY

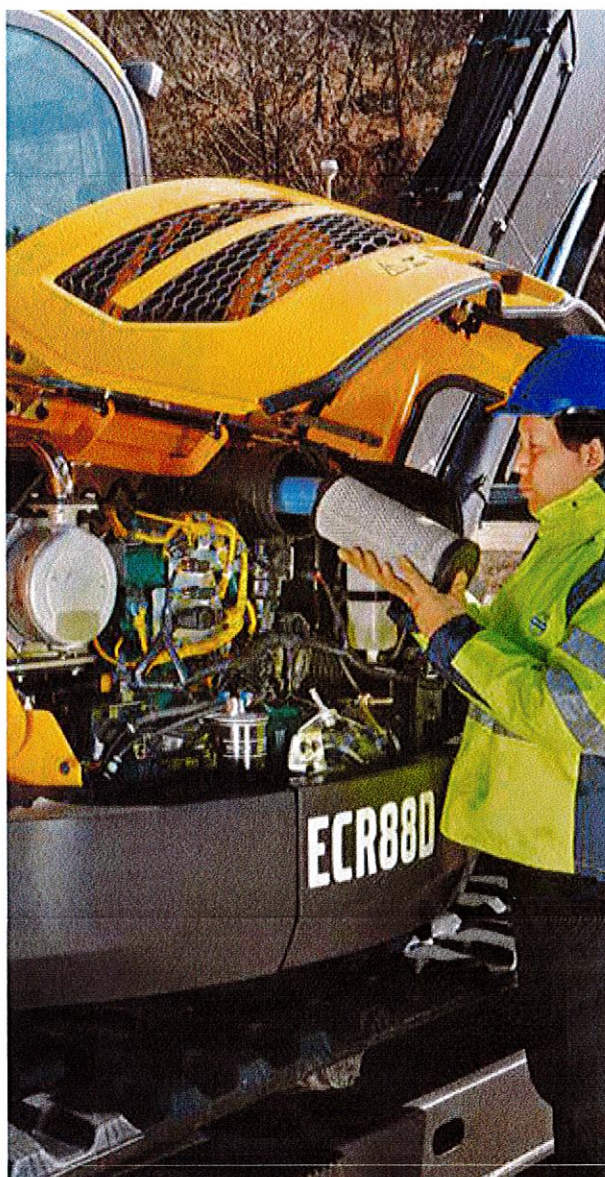
Design improvements including a counterweight have shifted the center of gravity towards the rear of the machine. Together with a strong undercarriage, this delivers superior stability while lifting bigger loads.

Stability you can count on

Whether you're working in the road construction, utilities, landscaping or any other application, the ECR88D will give you access to more jobsites, where you can work closer to obstacles, safely. With a heavy counterweight and strong undercarriage, this machine delivers superior stability. And with easy service access you'll enjoy maintenance made easy with Volvo.

Service access

For safe and easy access, all service check points are located under the wide-opening engine hood and are accessed from ground level. Grouped filters ensure regular maintenance is straightforward and uptime is maximized.



Single pivot pin

Volvo uses a single pivot design that achieves maximum support between main frame and front equipment. This concept increases stability, durability and lifetime of the components.



MATRIS and VCADS Pro

For increased uptime, Volvo's high-tech, computer-based MATRIS tool allows you to monitor machine usage and analyze machine operation. VCADS Pro analysis and programming software provides fast diagnostics.

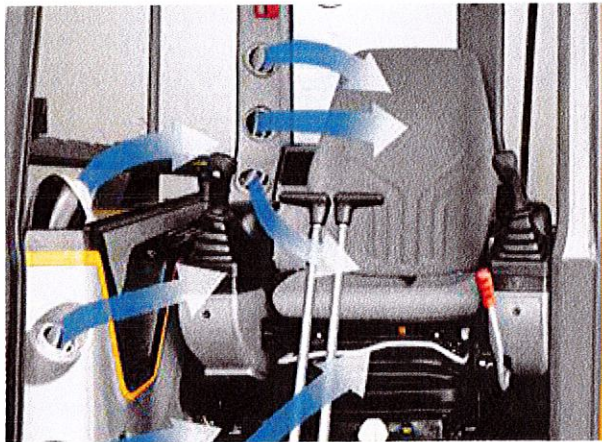


Visibly better

At Volvo we know that when operators are comfortable they experience less fatigue and work more productively. That's why the premium, Volvo designed cab provides superior visibility, a safe and spacious working environment and easy to access controls. Step inside and see the results for yourself.

Climate control

Control your climate with Volvo's powerful, industry-leading climate control system. With seven well-spaced vents quickly heating or cooling the cab, this air circulation and defrosting system increases comfort and productivity.



Keypad

The majority of switches are integrated in one centralized keypad on the right-hand console. The operator can easily control the I-ECU monitor and audio system for increased comfort.



Proportional joysticks

Via the joystick controls, the operator can easily adjust the direction and amount of hydraulic flow sent to the attachment. Benefit from the correct speed and power for optimal attachment operation.



Storage

The Volvo cab features ample storage locations for personal belongings including an additional glove-box, side pocket, phone storage, cup holder and a pocket behind the seat.





VOLVO CAB

All-around visibility from slim cab pillars and large expanses of glass is at the center of Volvo's cab design. The ROPS certified cab features vibration and noise isolation, ergonomic controls and an adjustable seat for increased comfort, reduced fatigue and increased productivity.



ATTACHMENTS VERSATILITY

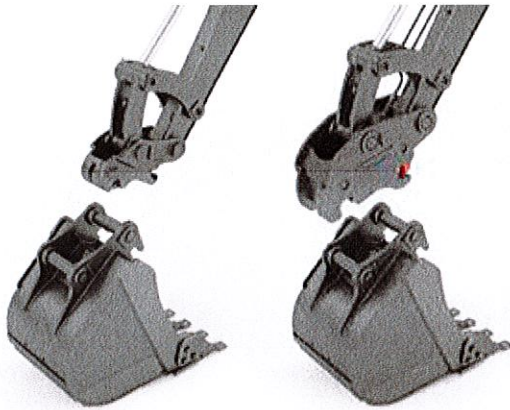
The machine's attachment can be easily changed to save time and costs. Its design, hydraulics, piping and in-cab controls combined with Volvo's attachments range allows the ECR88D to take on a variety of tasks. Volvo attachments work in harmony with the machine to deliver maximum productivity.

One machine, many job sites

Volvo offers a wide range of durable attachments that are suitable for any job site, including utilities, building, agriculture, landscaping and forestry. Volvo attachments are an integrated part of the excavator for which they're intended – delivering maximum productivity and versatility.

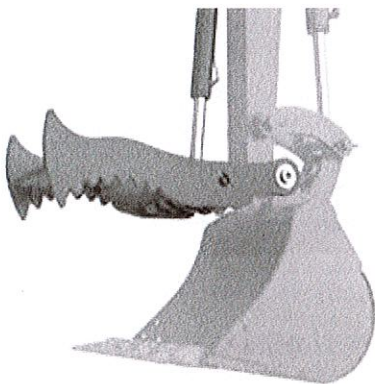
Quick coupler

Both the mechanical and the hydraulic quick couplers allow a complete range of buckets to be changed quickly and efficiently.



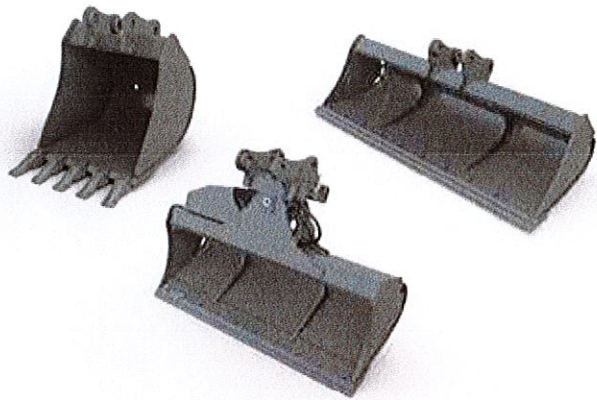
Thumb

Designed to work with both Volvo direct fit buckets and Volvo quick coupler, the Volvo thumb makes handling material easy for tasks including piling, placing, loading, lifting and carrying.



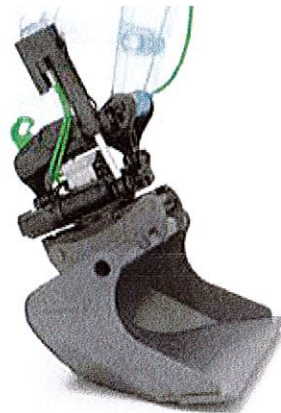
Buckets

A complete range of buckets from general purpose reinforced buckets to ditching buckets, allow the ECR88D to work on many job sites for a wide range of applications. The durable buckets are built to work in loose gravel, crushed rock, dirt and soil.



Steelwrist tiltrotator

A Volvo compact excavator together with a Steelwrist® tiltrotator delivers the ultimate combination of high productivity, safety, precision and control. Steelwrist tiltrotators provide a superior tilt angle and the compact design with low build height results in improved digging performance and higher fuel efficiency. Get more done with your machine, without changing attachment or machine position.



Built to get the job done

Auto idle

Engine speed is reduced to idle when the controls are inactive for more than five seconds or the left-hand console is raised – reducing fuel consumption and noise.

ENHANCED HYDRAULICS

The hydraulic system is perfectly matched to the engine and components for fast response and smooth operation.

STABILITY

A heavy counterweight and a strong undercarriage deliver superior stability and the ability to lift bigger loads.

Optional hydraulics

For increased versatility, auxiliary hydraulic systems are available to enable the operation of a wide range of attachments.

MATRIS and VCADS Pro

The MATRIS tool monitors machine usage and operation. VCADS Pro analysis and programming software provides fast diagnostics.

Optional dozer floating

The optional dozer blade float function 'floats' the dozer blade over the ground for improved leveling control and fuel efficiency.



VOLVO CAB

Volvo's purpose designed cab offers excellent allround viability, enhanced by the slim cab pillars and large windows.

VOLVO ENGINE

Tier 4f compliant Volvo Engine delivers superior performance with low fuel consumption.

SERVICE ACCESS

All service check points are accessed from ground level. Grouped filters make regular maintenance easy.

Auto engine shutdown

The auto engine shutdown provides lower fuel costs, less noise, much lower maintenance costs and a greater resale value.

ECO mode

The ECO mode provides optimal working performance together with fuel saving.

Undercarriage

Durable and strong X-shape undercarriage ensures superior stability and increases machine lifetime.

Single pivot pin

Volvo uses a single pivot design that achieves maximum support between main frame and front equipment. This concept increases stability, durability and lifetime of the components.



Adding value to your business

Being a Volvo customer means having a complete set of services at your fingertips. Volvo can offer you a long-term partnership, protect your revenue and provide a full range of customer solutions using high quality parts, delivered by passionate people. Volvo is committed to increasing the positive return on your investment and maximising uptime.

Complete Solutions

Volvo has the right solution for you. So why not let us provide all your needs throughout the whole life cycle of your machine? By listening

to your requirements, we can reduce your total cost of ownership and increase your revenue.



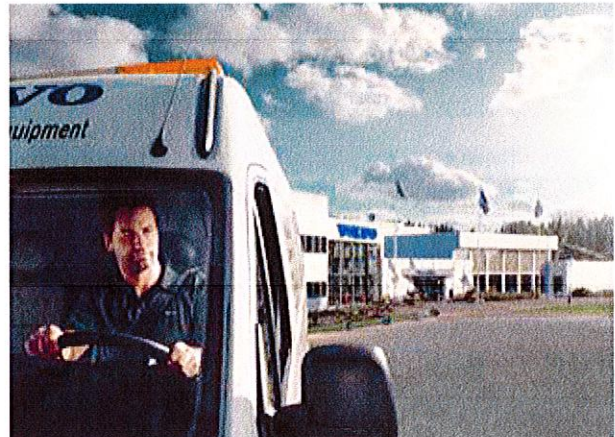
Genuine Volvo Parts

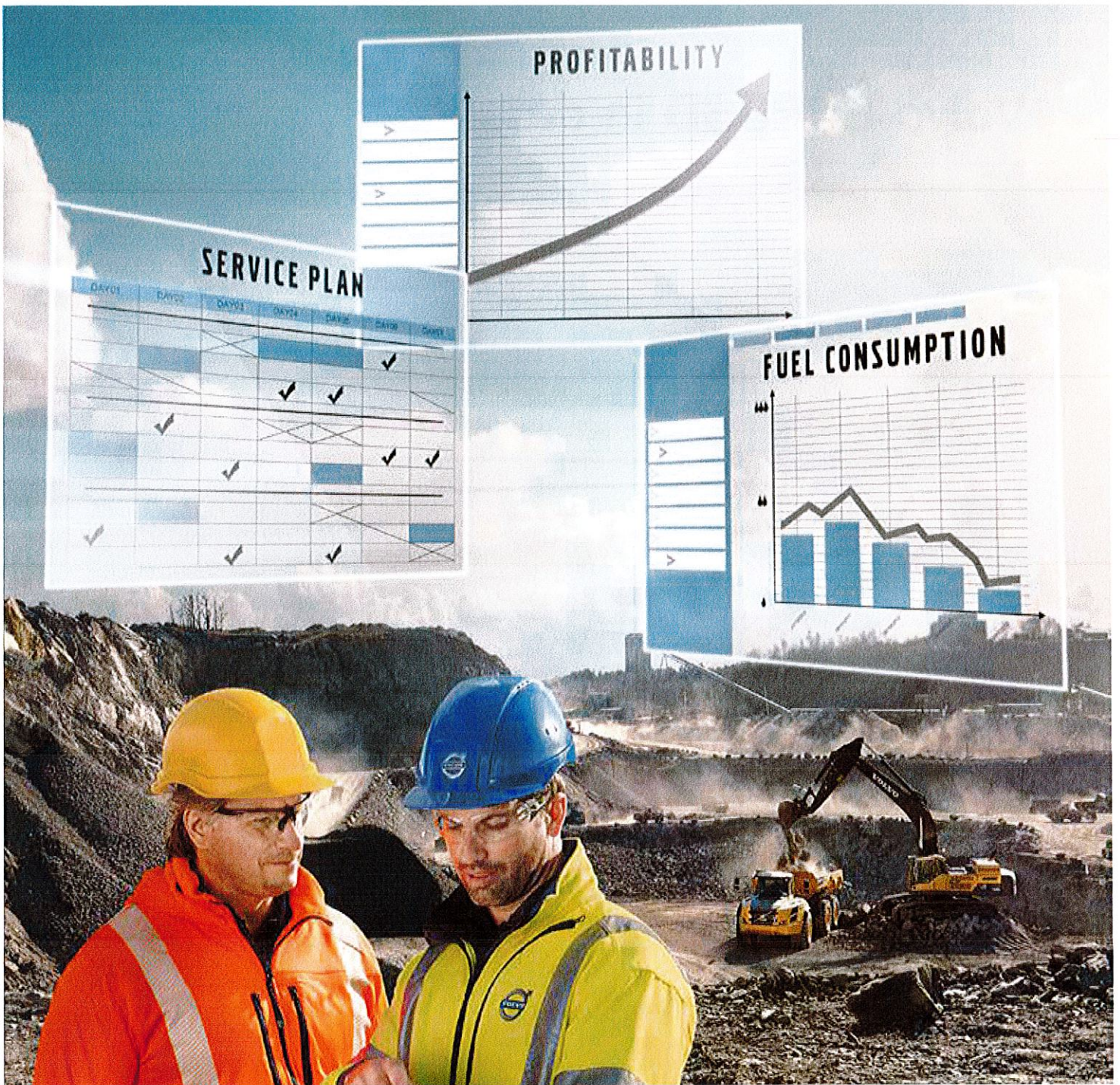
Our attention to detail is what makes us stand out. This proven concept acts as a solid investment in your machine's future. Parts are extensively tested and approved because every part is vital for uptime and performance. Only by using Genuine Volvo Parts, can you be sure that your machine retains the renowned Volvo quality.



Service Network

In order to respond to your needs faster, a Volvo expert is on their way to your job site from one of our Volvo facilities. With our extensive infrastructure of technicians, workshops and dealers, Volvo has a comprehensive network to fully support you using local knowledge and global experience.





CUSTOMER SUPPORT AGREEMENTS

The range of Customer Support Agreements offer preventive maintenance, total repairs and a number of uptime services. Volvo uses the latest technology to monitor machine operation and status, giving you advice to increase your profitability. By having a Customer Support Agreement you are in control of your service costs.

Volvo ECR88D in detail

Engine

The new Tier 4f / Stage V compliant diesel engine is equipped with in-line, turbocharged and water cooled.		
Model	Volvo	D2.6H
Max. power at	r/min (r/s)	2,000 (33.3)
Net (ISO 9249/SAE J1349)	kW (hp)	41 (55)
Gross (SAE J1995)	kW (hp)	43 (58)
Max. torque	Nm (ft lbf)	220 (162)
at engine speed	r/min	1,300
No. of cylinders		4
Displacement	l (in³)	2.62 (160)
Bore	mm (in)	87 (3.4)
Stroke	mm (in)	110 (4.3)

Electrical system

Voltage	V	12
Batteries	V	1 x 12
Battery capacity	Ah	100
Alternator	V/Ah	12/70
Starter motor output	V - kW	12 - 2.5

Hydraulic system

Open-center, negative hydraulic system providing accurate controllability		
Main pump: Variable-displacement pump		
Maximum flow	l/min (gal/min)	2 x 68 + 54 (2 x 18 + 14)
Pilot pump: Gear pump		
Maximum flow	l/min (gal/min)	13 (3.4)
Relief valve setting pressure		
Implement	MPa (psi)	29.4 (4,264)
Travel circuit	MPa (psi)	29.4 (4,264)
Swing circuit	MPa (psi)	24.5 (3,553)
Pilot circuit	MPa (psi)	3.4 (493)

Swing system

Direct drive swing with radial piston motor-maintenance free and automatic holding brake anti-rebound valve.		
Max. swing speed	r/min	9
Max. swing torque	kNm (ft lbf)	22.9 (16,890)

Undercarriage

Robust X-shaped frame with sealed and greased track chains.		
Track shoes		2 x 39
Link pitch	mm (in)	154 (6.1)
Shoe width - steel	mm (in)	450 / 600 (17.7 / 23.6)
Shoe width - rubber	mm (in)	450 (17.7)
Bottom rollers		2 x 5
Top rollers		2 x 1

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.		
Travel speed low	km/h (mi/h)	2.6 (1.6)
Travel speed high	km/h (mi/h)	4.9 (3)
Max. drawbar pull	kN (lbf)	65 (14,613)
Gradeability	°	35

Service Refill

Fuel tank	l (gal)	110 (29)
Hydraulic system, total	l (gal)	140 (37)
Hydraulic tank	l (gal)	84 (22)
Engine oil	l (gal)	10 (2.6)
Engine coolant	l (gal)	9.3 (2.5)
Travel reduction unit	l (gal)	2 x 1.6 (2 x 0.4)

Cab

Refrigerant of the type R134a is used when this machine is equipped with air conditioning. Contains fluorinated greenhouse gas R134a, Global Warming Potential 1.430 t CO2-eq		
---	--	--

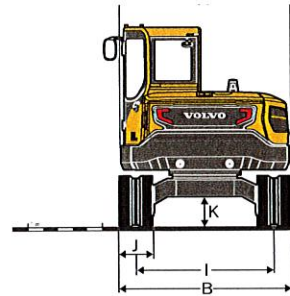
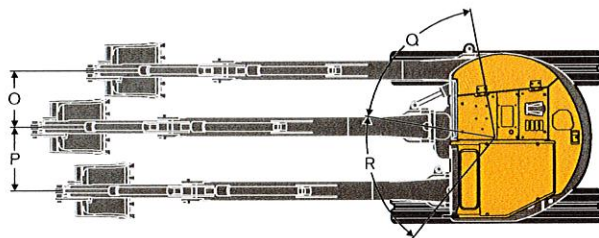
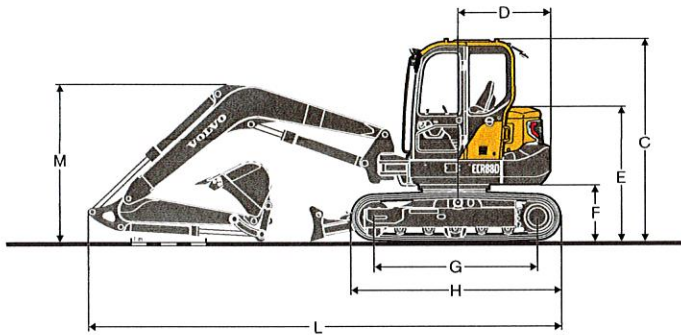
Sound Level

Sound level in cab according to ISO 6396		
LpA	dB(A)	73
External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC		
LwA	dB(A)	97

Buckets

	Width		Weight		Capacity	
	mm	in	kg	lb	l	cu.in
Direct bucket	300	12	111	250	79	4,820
	450	18	139	310	143	8,730
	600	24	162	360	200	12,200
	750	30	182	400	266	16,230
	900	35	205	450	333	20,320
Quick coupler bucket	450	18	132	290	143	8,730
	600	24	156	340	200	12,200
	700	28	171	380	244	14,890
	850	33	191	420	310	18,920

Specifications



DIMENSIONS

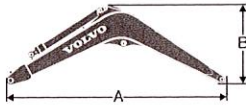
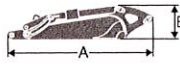
Machine

Boom	m	ft in	3.55	11'8"	3.55	11'8"
Arm	m	ft in	1.7	5'7"	2.1	6'11"
A Overall width of upper structure	mm	ft in	2,210	7'3"	2,210	7'3"
B Overall width	mm	ft in	2,300	7'7"	2,300	7'7"
C Overall height of cab	mm	ft in	2,715	8'11"	2,715	8'11"
D Tail swing radius	mm	ft in	1,290	4'3"	1,290	4'3"
E Overall height of engine hood	mm	ft in	1,180	3'10"	1,180	3'10"
F Counterweight clearance *	mm	ft in	760	2'6"	760	2'6"
G Tumbler length	mm	ft in	2,200	7'3"	2,200	7'3"
H Track length	mm	ft in	2,830	9'3"	2,830	9'3"
I Track gauge	mm	ft in	1,850	6'1"	1,850	6'1"
J Shoe width	mm	ft in	450	1'6"	450	1'6"
K Min. ground clearance *	mm	ft in	405	1'4"	405	1'4"
L Overall length	mm	ft in	6,370	20'11"	6,420	21'1"
M Overall height of boom	mm	ft in	2,115	6'11"	2,230	7'4"
O Boom swing distance	mm	ft in	760	2'6"	760	2'6"
P Boom swing distance	mm	ft in	860	2'10"	860	2'10"
Q Boom swing angle	°		70		70	
R Boom swing angle	°		60		60	

* Without shoe grouser

Specifications

Boom and Arm

									
				Boom		Arm			
		m	ft in	3.55	11'8"	1.7	5'7"	2.1	6'11"
A	Length	mm	ft in	3,690	12'1"	2,283	7'6"	2,684	8'10"
B	Height	mm	ft in	1,244	4'1"	518	1'8"	562	1'10"
	Width	mm	ft in	335	1'1"	305	1'0"	305	1'0"
	Weight	kg	lb	530	1,170	280	620	340	750

Boom: Includes cylinder, piping and pin, excludes boom cyl. Pin.

Arm: Includes cylinder, linkage and pin.

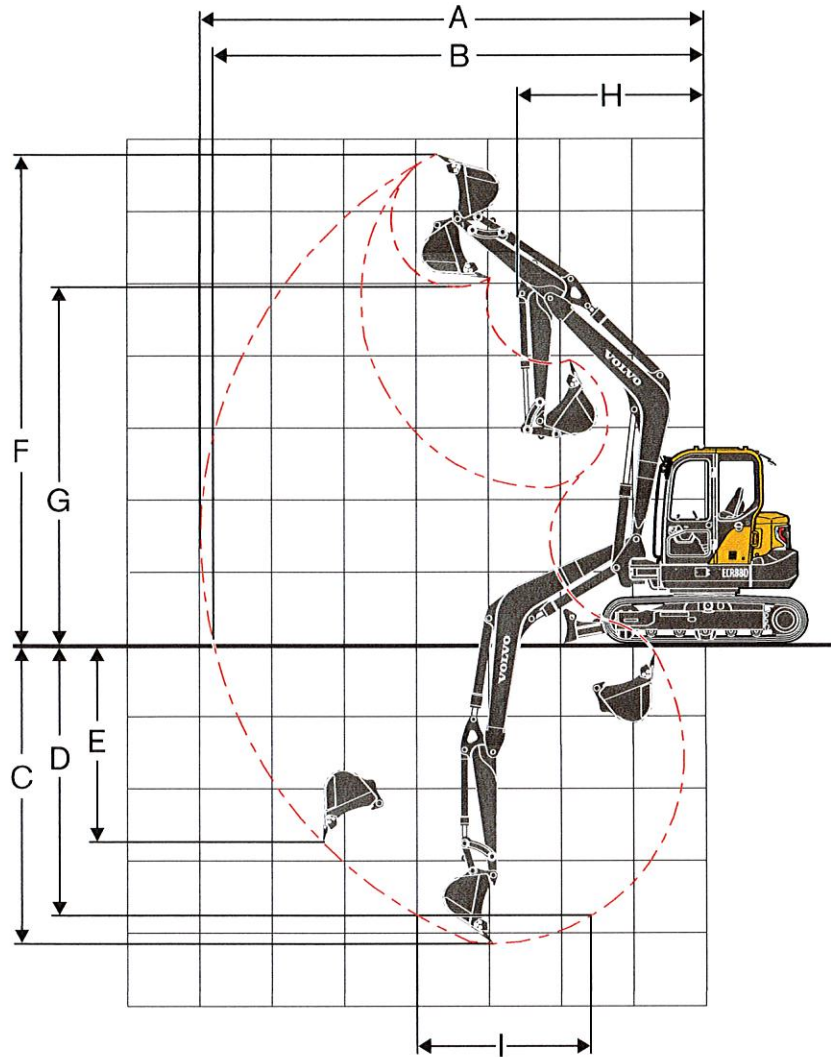
Dozer blade

A	Height	mm	ft in	470	1'7"
	Width	mm	ft in	2,300	7'7"
B	Lifting height	mm	ft in	518	1'8"
C	Digging depth	mm	ft in	433	1'5"



MACHINE WEIGHTS AND GROUND PRESSURE

	Shoe width		Operating weight		Ground pressure	
	mm	in	kg	lb	kPa	psi
Mono boom 3.55 m 11'8", Arm 1.7 m 5'7", Bucket 188 kg (266 l) 410 lb, Counterweight 1,480 kg 3,260 lb						
Steel track	450	18	9,010	19,860	40.5	5.9
	600	24	9,180	20,240	30.9	4.5
Rubber track	450	18	8,810	19,420	39.6	5.7
Rubber pad	450	18	9,030	19,910	40.4	5.9
Mono boom 3.55 m 11'8", Arm 2.1 m 6'11", Bucket 188 kg (266 l) 410 lb, Counterweight 1,480 kg 3,260 lb						
Steel track	450	18	9,090	20,040	40.9	5.9
	600	24	9,260	20,410	31.2	4.5
Rubber track	450	18	8,890	19,600	40.0	5.8
Rubber pad	450	18	9,110	20,080	40.8	5.9



WORKING RANGES

Description		Unit					
		m	ft in	3.55	11'8"	3.55	11'8"
Boom							
Arm		m	ft in	1.7	5'7"	2.1	6'11"
A	Max. digging reach	mm	ft in	6,970	22'10"	7,350	24'1"
B	Max. digging reach on ground	mm	ft in	6,800	22'4"	7,180	23'7"
C	Max. digging depth	mm	ft in	4,130	13'7"	4,530	14'10"
D	Max. digging depth (l=2.44m / 8' level)	mm	ft in	3,750	12'4"	4,200	13'9"
E	Max. vertical wall digging depth	mm	ft in	2,820	9'3"	3,200	10'6"
F	Max. cutting height	mm	ft in	6,790	22'3"	7,050	23'2"
G	Max. dumping height	mm	ft in	4,960	16'3"	5,220	17'2"
H	Min. front swing radius	mm	ft in	2,560	8'5"	2,640	8'8"

Digging forces with direct fit bucket

Breakout force (bucket)	SAE J1179	kN	lb	50.7	11,400	50.4	11,330
	ISO 6015	kN	lb	57.2	12,860	56.8	12,770
Tearout force (arm)	SAE J1179	kN	lb	38.9	8,740	33.8	7,600
	ISO 6015	kN	lb	39.8	8,950	34.4	7,730
Rotation angle, bucket			°	190		190	

Specifications

LIFTING CAPACITY ECR88D

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 point		1.0 m, 3.3 ft		2.0 m, 6.6 ft		3.0 m, 9.9 ft		4.0 m, 13.2 ft		5.0 m, 16.5 ft		6.0, 19.8 ft		Max. reach		
	m	ft	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Max.
Boom 3.55m, 11'8" Arm 1.7m, 5'7" Shoe 450mm, 18" CWT 1 480kg / 3,260lb Dozer blade down	5.0	kg							*1,520	*1,520					*1,600	*1,600	4.6 m
	16.5	lb							*3,380	*3,380					*3,550	*3,550	14.9 ft
	4.0	kg							*1,580	*1,580	*1,540	1,390			*1,560	1,230	5.3 m
	13.2	lb							*3,470	*3,470	*3,400	3,050			*3,450	2,740	17.5 ft
	3.0	kg					*2,490	*2,490	*1,890	*1,890	*1,640	1,360			*1,540	1,060	5.8 m
	9.9	lb					*5,420	*5,420	*4,150	*4,150	*3,610	2,980			*3,400	2,340	19.0 ft
	2.0	kg					*3,700	2,830	*2,330	1,840	*1,830	1,310	*1,590	980	*1,580	980	6.0 m
	6.6	lb					*8,040	6,200	*5,100	4,040	*4,010	2,870			*3,490	2,160	19.7 ft
	1.0	kg							*2,690	1,750	*2,000	1,260	*1,630	960	*1,620	950	6.0 m
	3.3	lb					*5,550	*5,550	*5,870	3,830	*4,380	2,770			*3,580	2,110	19.7 ft
	0.0	kg					*3,800	2,640	*2,810	1,700	*2,070	1,230			*1,670	990	5.8 m
	0	lb					*8,570	5,760	*6,150	3,720	*4,540	2,700			*3,680	2,180	19.1 ft
	-1.0	kg			*3,560	*3,560	*3,840	2,640	*2,690	1,690	*1,970	1,220			*1,700	1,100	5.4 m
	-3.3	lb			*7,910	*7,910	*8,410	5,780	*5,890	3,690	*4,300	2,680			*3,760	2,430	17.7 ft
	-2.0	kg			*4,790	*4,790	*3,200	2,690	*2,270	1,710					*1,710	1,370	4.7 m
	-6.6	lb			*10,470	*10,470	*6,990	5,870	*4,950	3,750					*3,760	3,030	15.4 ft
	-3.0	kg					*1,880	*1,880							*1,500	*1,500	3.4 m
	-9.9	lb					*4,040	*4,040							*3,290	*3,290	11.2 ft
Boom 3.55m, 11'8" Arm 1.7m, 5'7" Shoe 450mm, 18" CWT 1 480kg / 3,260lb Dozer blade up	5.0	kg							*1,520	*1,520					*1,600	1,520	4.6 m
	16.5	lb							*3,380	*3,380					*3,550	3,400	14.9 ft
	4.0	kg							*1,580	*1,580	*1,540	1,320			1,470	1,160	5.3 m
	13.2	lb							*3,470	*3,470	*3,400	2,880			3,270	2,580	17.5 ft
	3.0	kg					*2,490	*2,490	*1,890	1,850	1,630	1,290			1,270	1,000	5.8 m
	9.9	lb					*5,420	*5,420	*4,150	4,040	3,560	2,820			2,820	2,210	19.0 ft
	2.0	kg					3,440	2,650	2,210	1,740	1,580	1,240	1,180	920	1,180	920	6.0 m
	6.6	lb					7,530	5,800	4,850	3,800	3,450	2,710			2,610	2,030	19.7 ft
	1.0	kg							2,120	1,640	1,530	1,190	1,160	900	1,160	900	6.0 m
	3.3	lb					*5,550	5,450	4,640	3,600	3,340	2,600			2,550	1,980	19.7 ft
	0.0	kg					3,240	2,460	2,070	1,590	1,490	1,160			1,200	930	5.8 m
	0	lb					7,080	5,380	4,520	3,490	3,270	2,530			2,650	2,050	19.1 ft
	-1.0	kg			*3,560	*3,560	3,250	2,470	2,050	1,580	1,480	1,150			1,330	1,030	5.4 m
	-3.3	lb			*7,910	*7,910	7,100	5,400	4,490	3,460	3,250	2,510			2,940	2,280	17.7 ft
	-2.0	kg			*4,790	*4,790	*3,200	2,510	2,080	1,610					1,650	1,280	4.7 m
	-6.6	lb			*10,470	*10,470	*6,990	5,490	4,550	3,520					3,660	2,850	15.4 ft
	-3.0	kg					*1,880	*1,880							*1,500	*1,500	3.4 m
	-9.9	lb					*4,040	*4,040							*3,290	*3,290	11.2 ft

Notes: 1. The above loads are in compliance with SAE J1,097 and ISO 1,0567 Hydraulic Excavator Lifting Capacity Standards. 2. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. 3. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

LIFTING CAPACITY ECR88D

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 point		1.0 m, 3.3 ft		2.0 m, 6.6 ft		3.0 m, 9.9 ft		4.0 m, 13.2 ft		5.0 m, 16.5 ft		6.0, 19.8 ft		Max. reach		
	m	ft	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Along	Across	Max.
Boom 3.55m, 11'8" Arm 2.1m, 6'11" Shoe 450mm, 18" CWT 1 480kg / 3,260lb Dozer blade down	6.0	kg													*1,510	*1,510	4.0 m
		19.8 lb													*3,350	*3,350	12.8 ft
	5.0	kg									*1,380	*1,380			*1,320	*1,320	5.1 m
		16.5 lb									*3,080	3,060			*2,930	*2,930	16.6 ft
	4.0	kg									*1,340	*1,340			*1,230	1,070	5.8 m
		13.2 lb									*2,960	*2,960			*2,710	2,380	18.9 ft
	3.0	kg							*1,650	*1,650	*1,470	1,370	*1,390	990	*1,210	940	6.2 m
		9.9 lb							*3,610	*3,610	*3,230	2,990	*3,080	2,170	*2,660	2,070	20.3 ft
	2.0	kg					*3,160	2,900	*2,100	1,850	*1,680	1,310	*1,470	970	*1,240	870	6.4 m
		6.6 lb					*6,870	6,350	*4,600	4,060	*3,690	2,860	*3,230	2,120	*2,730	1,920	20.9 ft
	1.0	kg					*3,630	2,660	*2,520	1,740	*1,890	1,250	*1,560	940	*1,320	850	6.4 m
		3.3 lb					*8,300	5,830	*5,500	3,810	*4,130	2,730	*3,410	2,050	*2,920	1,870	21.0 ft
	0.0	kg					*3,940	2,580	*2,730	1,670	*2,010	1,200	*1,590	920	*1,480	870	6.2 m
		0 lb					*8,870	5,640	*5,980	3,650	*4,410	2,630	*3,470	2,010	*3,270	1,920	20.4 ft
	-1.0	kg	*2,660	*2,660	*3,090	*3,090	*4,000	2,570	*2,720	1,640	*2,000	1,180			*1,550	950	5.8 m
		-3.3 lb	*5,890	*5,890	*6,860	*6,860	*8,740	5,610	*5,950	3,590	*4,370	2,590			*3,420	2,100	19.1 ft
	-2.0	kg	*3,980	*3,980	*4,940	*4,940	*3,490	2,600	*2,440	1,650	*1,720	1,200			*1,580	1,140	5.2 m
		-6.6 lb	*8,830	*8,830	*11,000	*11,000	*7,630	5,680	*5,320	3,620	*3,740	2,630			*3,480	2,530	17.0 ft
	-3.0	kg			*3,870	*3,870	*2,510	*2,510	*1,650	*1,650					*1,530	*1,530	4.1 m
		-9.9 lb			*8,390	*8,390	*5,450	*5,450	*3,550	*3,550					*3,370	*3,370	13.5 ft
Boom 3.55m, 11'8" Arm 2.1m, 6'11" Shoe 450mm, 18" CWT 1 480kg / 3,260lb Dozer blade up	6.0	kg													*1,510	*1,510	4.0 m
		19.8 lb													*3,350	*3,350	12.8 ft
	5.0	kg									*1,380	1,330			*1,320	1,280	5.1 m
		16.5 kg									*3,080	2,890			*2,930	2,840	16.6 ft
	4.0	lb									*1,340	1,330			*1,230	1,010	5.8 m
		13.2 lb									*2,960	2,900			*2,710	2,250	18.9 ft
	3.0	kg							*1,650	*1,650	*1,470	1,290	1,200	930	1,130	880	6.2 m
		9.9 lb							*3,610	*3,610	*3,230	2,820	2,620	2,040	2,510	1,950	20.3 ft
	2.0	kg					*3,160	2,720	*2,100	1,750	1,570	1,230	1,170	910	1,050	810	6.4 m
		6.6 lb					*6,870	5,950	*4,600	3,820	3,440	2,690	2,560	1,990	2,330	1,800	20.9 ft
	1.0	kg					3,270	2,480	2,110	1,630	1,510	1,170	1,140	880	1,030	790	6.4 m
		3.3 lb					7,150	5,440	4,610	3,580	3,300	2,570	2,500	1,930	2,280	1,750	21.0 ft
	0.0	kg					3,180	2,400	2,030	1,560	1,460	1,130	1,120	860	1,060	810	6.2 m
		0 lb					6,950	5,260	4,450	3,420	3,210	2,470	2,450	1,880	2,350	1,800	20.4 ft
	-1.0	kg	*2,660	*2,660	*3,090	*3,090	3,170	2,390	2,010	1,540	1,440	1,110			1,160	890	5.8 m
		-3.3 lb	*5,890	*5,890	*6,860	*6,860	6,930	5,230	4,390	3,360	3,160	2,430			2,570	1,970	19.1 ft
	-2.0	kg	*3,980	*3,980	*4,940	*4,940	3,200	2,420	2,020	1,550	1,460	1,120			1,390	1,070	5.2 m
		-6.6 lb	*8,830	*8,830	*11,000	*11,000	7,000	5,300	4,420	3,390	3,200	2,460			3,070	2,370	17.0 ft
	-3.0	kg			*3,870	*3,870	*2,510	2,500	*1,650	1,610					*1,530	*1,530	4.1 m
		-9.9 lb			*8,390	*8,390	*5,450	*5,450	*3,550	3,530					*3,370	*3,370	13.5 ft

Notes: 1. The above loads are in compliance with SAE J1097 and ISO 1,0567 Hydraulic Excavator Lifting Capacity Standards. 2. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. 3. Rated loads marked with an asterisk (*) are limited by hydraulic capacity rather than tipping load.

Equipment

STANDARD EQUIPMENT

Engine

Low-emission Tier 4f / Stage V diesel engine
Standard cooling system
Two-stage air filter
Fuel filter and water separator
Alternator, 70 A
Full auto regeneration
ECO mode

Electric / Electronic control system

Safe engine start function
Automatic idling system
Halogen working lights:
Cab-mounted 2 (front)
Battery, 12 V / 100 Ah
Start motor, 12 V / 2.5 kW
Travel alarm
Monitor and keypad
Master electrical disconnect switch

Frame

1 480kg (3,260lb) counterweight
Under cover
Dozer blade

Undercarriage

Greased and sealed track link
450mm rubber track

Hydraulic system

Automatic two speed travel motors
Cylinder cushioning
Hydraulic fluid mineral 46
Pilot control pattern change

Cab and interior

Canopy
PVC operator seat with suspension
Seat belt, 2 inch retractable
Seat belt alarm
Control joystick
Master key
Hour meter (non analog)

Digging equipment

Boom: 3.55m (11'8"), Arm: 1.7m (5'7")
Linkage

Service

Tool kit-daily maintenance

Official approval

Object handling device conforming to ISO20474-1 and ISO20474-5 standards (when equipped)
FOPS Level 2 conforming to ISO3449 standard (when equipped)
ROPS conforming to ISO12117-2 standards
TOPS conforming to ISO12117 and EN13531 standards
FOG Level 2 conforming to ISO10262 standard and SAE J1356 standard (when equipped)

OPTIONAL EQUIPMENT

Electric / Electronic control system

Fuel filler pump: 35 l/min, with automatic shut-off
Auto engine shutdown
LED light
Extra working lights:
Cab-mounted 1 (rear), Boom-mounted 1
Caretrack
Travel alarm
Anti theft, code-lock
Rotating warning beacon

Undercarriage / Superstructure

450mm (18"), 600mm (24") steel track
450mm (18") rubber pad
Heavy counterweight
Wide dozer blade for 600mm (24") shoe

Frame

Rearview mirror
Dozer blade with floating function

Hydraulic system

Hydraulic piping:
Breaker & shear
- Max. flow: 68 l/min (18 gal/min)
- Pressure: 21.6 MPa (3,132 psi) (X1 single) / 29.4 Mpa (4,264psi) (X1 double)
Slope & rotator
- Max. flow: 28 l/min (7.4 gal/min)
- Pressure: 14.7 MPa (2,130 psi)
Grapple
Quick coupler
Hose rupture valve for boom and arm
Overload warning device
Hydraulic oil, ISO VG 32, 68
Hydraulic oil, biodegradable 46
Hydraulic oil, longlife oil 46

Cab and interior

Cab
Carecab
Fabric operator seat with suspension
Heater and air-conditioner, includes defroster
Control joystick, X3 proportional
Seat belt, 3 inch retractable
Rain visor
Boom swing pedal
AM/FM stereo
AM/FM stereo with CD player and USB input
Mechanical hour meter
Cab mounted FOG (Falling Object Guard)
FOPS (Falling Object Protection Structure)
Sun screen, front/roof
Safety net

Digging equipment

Arm: 2.1m (6'11")

Service

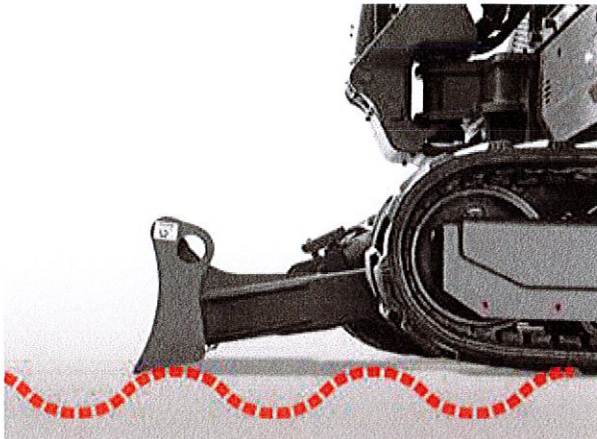
Tool kit, full scale
Spare parts

SELECTION OF VOLVO OPTIONAL EQUIPMENT

Slope and rotator piping



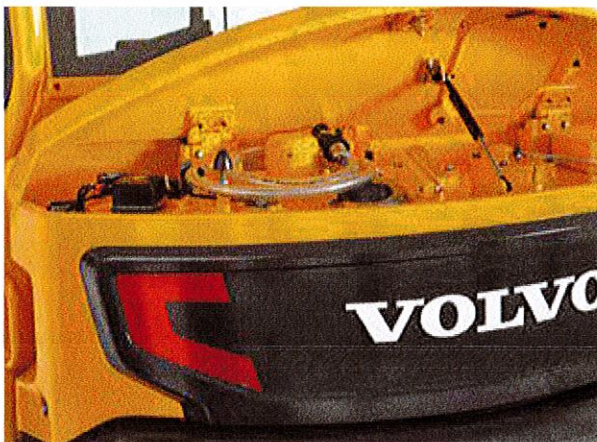
Dozer float



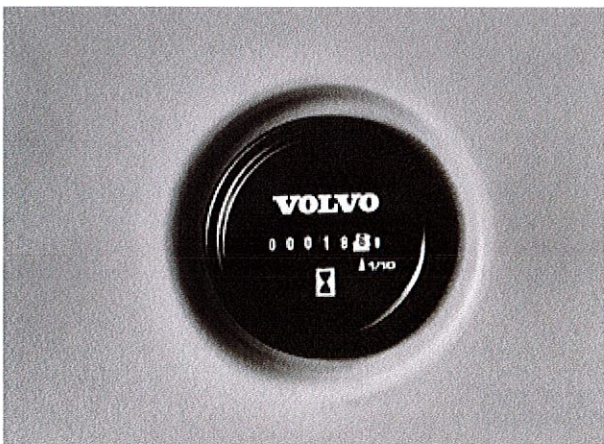
Caretrack



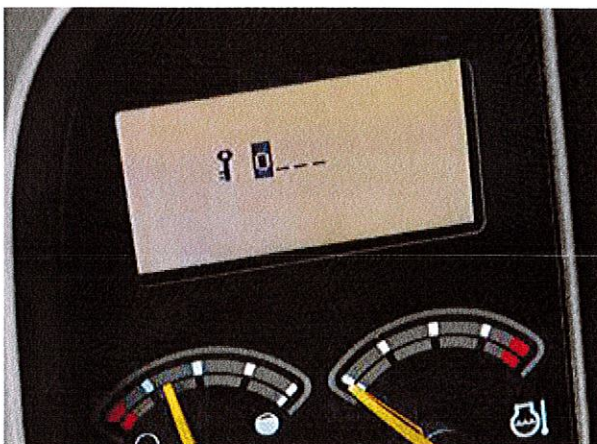
Fuel filler pump



Mechanical hour meter



Anti-theft



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

VOLVO

Volvo Construction Equipment

www.volvocem.com

Model: Volvo ECR88D Compact Excavator

Description	Article	MSRP
Volvo ECR88D Compact Excavator	ECR88D	95030.68
Offset Boom 140" (3550mm)	CE12005	0.00
Standard Arm, 67" (1700mm) w/ thumb bracket w/cw CE87002 470lbs (210kg)	CE13018	0.00
Dozer Blade with Float Function	CE15023	0.00
18" rubber pad inserts for steel grousers (includes CE21003)	CE21011	4160.24
Engine for NA, Stage V	CE30013	0.00
Auto idling	CE31001	0.00
Engine Auto Shutdown	CE31002	201.96
Cab " ONLY" (pre-wired for Caretrack); for heat add CE44005; for heat and a/c add CE44006	CE40022	2496.96
Fabric seat Mech susp w/ heat	CE41005	155.04
Standard Cooling Package for Engine and Work Hydraulics	CE32001	0.00
Seat belt, 3" retractable	CE42003	74.80
Heat & A/C	CE44006	1940.04
ISO Pattern Selector Valve	CE43001	0.00
Rearview mirror	CE45010	127.84
Hour meter, analog	CE45012	0.00
Universal key	CE46002	0.00
Joystick_ w/o X3	CE47011	0.00
Work light basic_Halogen	CE54001	0.00
Work light, additional rear	CE50002	151.64
Travel alarm w/ delay	CE51001	341.36
Hydraulic oil ISO VG46 14°F to 86°F (-10°C to 30°C)	CE60003	0.00
X1 Piping w offset boom control in r/h joystick	CE62015	0.00
Tool kit - daily maintenance	CE70002	0.00
Manual - English	CE71005	0.00
Frame lifetime guarantee	CE72001	384.88
Decals NA	CE80002	0.00
HD Counterweight 240lbs (110kg)	CE87002	0.00
18" , .187yd, GP trenching bucket, VTS Tooth System (3 teeth)	CE8293213	970.36
TOTAL MSRP STANDARD SPECIFICATION		106035.80



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.

ACCA Response Commitment

Cowin Equipment Commits to respond to a call from a county concerning a warranty repair within 36 hours.



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



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
Electronically Signed	02/15/2012
Signature	Date

Department of Homeland Security – Verification Division

USCIS Verification Division

Name (Please Type or Print)	Title
Electronically Signed	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: Cowin Equipment Company Inc

Company Facility Address: 2238 Pinson Valley Parkway
Birmingham, AL 35217

County or Parish: JEFFERSON

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		