

BID SUBMITTAL FORM
Alabama County Joint Bid Program
BID ITEM – 3 CY WHEEL LOADER - OPTION C

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:

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

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

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

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

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

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

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

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

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

Initials

JE

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3 CY WHEEL LOADER - OPTION C

Total Bid Price for Standard Machine: \$ 196,194.00
(Total Bid Price for Standard Machine Includes Freight Preparation, Delivery and Standard Warranty Costs)*

Freight Preparation and Delivery: \$ 1,500.00
(Included in Standard Machine Bid Price)

Manufacturer's Suggested Retail Price for Standard Machine: \$ 266,524.00

Equipment Model #: Volvo L70H2

Description: 3.0 CY Wheel Loader

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
3 CY WHEEL LOADER - OPTION C**

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*

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

JE

Equipment Model #: Volvo L70H

Description: 3.0 CY Wheel Loader

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
3 CY WHEEL LOADER - OPTION C**

GENERAL

These specifications shall be construed as the minimum acceptable standards for a 3-yard wheel loader. 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 manufacturer's equipment. The wheel loader must be a new current production model and shall meet all EPA and other applicable standards at the time of manufacturer.

The use of specific names and numbers in the specification 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 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 bid price 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) copy of the 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 bid. If 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 on 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

DUMP CLEARANCE

The wheel loader dump clearance shall be no less than 10' 4" at full height and 45 degree dump angle with a double arm Z bar configuration

Yes No
Page # 6

STEERING

The wheel loader shall have a 40-degree full turn articulation steering angle both right and left of center.

Yes No
Page # 6

OPERATOR STATION

Cab shall be designed and built by the loader manufacturer.

Yes No
Page # 10

Cab shall be enclosed and equipped with heater, air conditioner

Yes No
Page # 10

Loader shall meet ROPS/FOPS regulations standard in North America.

Yes No
Page # 10

Loader shall have easy to read gauges, gear selection, direction and RPM readings.

Yes No
Page # 10

Loader shall have a standard hydraulic joystick which controls both lift and tilt functions. A remote transmission control switch on joystick to be standard.

Yes No
Page # 10

Loader shall have fully adjustable, air suspension seat.
Loader shall be equipped with a Fire Extinguisher

Yes No
Page # 10

Loader shall have retractable 3" seat belt.

Yes No
Page # 10

POWERTRAIN

Engine must have a minimum of **six (6)** cylinders and turbocharged and **designed and manufactured by machine manufacturer.**

Yes No
Page # 4

The loader shall be equipped with crankcase and powertrain guards.

Yes No
Page # 11

All powertrain components shall be designed and built by loader manufacturer.

Yes No
Page # 4

The engine shall have a minimum net HP of **170** at 1800 RPM with a minimum displacement of **348** cubic inches and **627** lbs./ft. torque.

Yes No
Page # 4

The engine shall meet all Tier 4/final emission requirements

Yes No
Page # 4

Loader shall have electronic module to control engine timing and monitoring of vital engine systems.

Yes No
Page # 4

Loader shall have fixed front axle with locking differential and oscillating rear axle ($\pm 13^\circ$) with open differential.

Yes No
Page # 5

Loader shall have fully enclosed, adjustment free oil-disc brakes.

Yes No
Page # 4

Unit shall be equipped with 20.5 R25 L3 XHA tires.

Yes No
Page # 5

Loader shall have powershift transmission designed and built by manufacturer.
The loader shall have at minimum 4-forward/4 reverse with a minimum travel speed forward of 28 mph and reverse of 28 mph.

Yes No
Page # 5

Loader shall have computer-controlled modulation for smoother shifting.

Yes No
Page # 5

Loader shall have manual shifting as well as auto shifting options. Auto shift will have full throttle (aggressive operation) and variable shift (economy mode) options.

Yes No
Page # 5

INSTRUMENTATION

The wheel loader shall include the following gauges: hour meter, fuel, transmission or torque converter oil temperature and engine coolant temperature.

Yes No
Page # 4

The wheel loader shall also include the following indicator lights: battery charge, engine oil pressure, low coolant level, parking brake warning, and low brake pressure.

Yes No
Page # 4

HYDRAULIC SYSTEM:

Shall have a minimum flow of 40 gallons/minute.

Yes No
Page # 5

WORK TOOLS

Bucket shall be designed and built by the loader manufacturer.

Yes No
Page # 11

Bucket shall be in 3.0 CYD capacity (with bolt-on cutting edges and teeth).

Yes No
Page # 8

SERVICEABILITY

All daily service points shall be accessible from the ground level and shall have sight gauges for radiator coolant, hydraulic oil and transmission oil.

yes
Page 3

All filters shall be vertically mounted and spin-on for ease of service and to prevent spilling during service.

Yes No
Page # 3,4,5

GENERAL

Unit shall be equipped with vandalism protection with locking service ports, cushioned steering stops, front fenders, and toolbox in addition to all other Standard equipment

Yes No
Page # 10

OPERATING WEIGHT AND LIFT CAPACITIES

Unit shall be minimum of **30,800** lbs. operating and proper ballasting for **3.0** cubic yard bucket and 20.5-25 radial (L-3) tires.

Yes No
Page # 8

Straight static tipping load shall be a minimum of **20,340** lbs.

Yes No
Page # 8

Full turn (40°) static tipping load shall be a minimum of **17,610** lbs.

Yes No
Page # 8

Breakout force shall be a minimum of **18,190** lbs.

Yes No
Page # 8

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

V O L V O



Volvo Wheel Loaders 14.0 t / 30,880 lb 170 hp

L70H



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

Volvo Construction Equipment

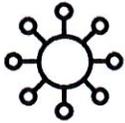
L70H

Leave the heavy-duty work for the L70H, designed to do more, be more comfortable and help you increase your productivity.



Designed to do more

Hard work has never felt so easy. H-Series wheel loaders are built with an industry-leading, strong frame, which, combined with the ideally-matched genuine Volvo drivetrain, achieves long-lasting performance. And with the help of a range of smart apps you can boost the efficiency of your operation from the comfort of the cab.



Loaded with versatility

- Torque Parallel linkage
- Volvo attachment bracket
- Range of purpose-built attachments
- Rehandling bucket
- 3rd and 4th hydraulic functions



Keep it moving

- Quick hydraulic oil fill thanks to new mounted nipple
- Improved cooling capacity
- Strong frame and central hinge
- Standard delayed engine shutdown
- Optional external axle cooling
- Optional Load Assist Tire Pressure monitoring



Safety as standard

- Anti-slip steps and strategically placed handrails
- Orange three-point seatbelt
- Redesigned side mirrors
- Rear-view camera



Strong and stable

- Optimized loading unit weight, heavy-duty counterweight for greater stability
- Standard electro-servo controls
- Auto Bucket leveling function
- Lifetime Frame warranty



Increased productivity

- Optional lock-up converter
- Rimpull control
- Smart Control
- Smooth Control
- Eco pedal
- Load Assist On-Board Weighing hardware- Standard
- Load Assist Operator Coaching - Standard



Greater access

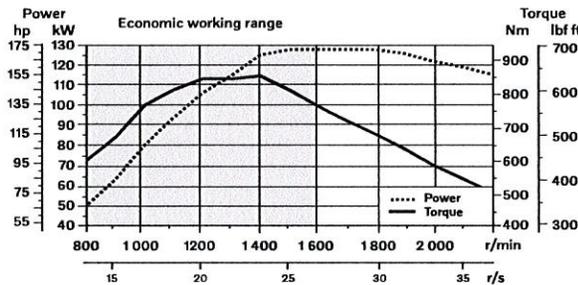
- Cooler installation slides out for easier cleaning
- Repositioned fill spouts for transmission and engine oil
- Ground-level access to service points
- Electronically-operated engine hood

Volvo L70H in detail

Engine

6-cylinder, 6 liters inline turbocharged diesel engine with an advanced fuel injection system with the common rail. Fuel is distributed under high pressure from a high-pressure accumulator, the rail. One belt driven high pressure pump deliver the fuel to the rail and then further on via high-pressure pipes to the electronically operated fuel injectors. Engine meets Tier 4f / EU Stage V emission legislation.

Engine	Volvo	D6J
Max. power at	r/min (r/s)	1 500 - 1 800 (23.3 - 28.3)
ISO 14396 gross	kW (hp)	127 (170)
ISO 9249, SAE J1349 net	kW (hp)	127 (170)
Max. torque at	r/min (r/s)	1,400 (23.3)
ISO 14396 gross	Nm (ft lbf)	850 (627)
ISO 9249, SAE J1349 net	Nm (ft lbf)	850 (627)
Economic working range	r/min (r/s)	800 - 1 600 (13.3 - 26.8)
Displacement	l (in ³)	5.7 (348)



Electrical System

Contronic electrical system with central warning light and buzzer for following functions: - Serious engine fault, Low steering system pressure, Over speed warning engine, Interruption in communication (computer fault), Central warning light and buzzer with the gear engaged for the following functions: Low engine oil pressure, High engine oil temperature, High charge air temperature, Low coolant level, High coolant temperature, High crank case pressure, Low transmission oil pressure, High transmission oil temperature, Low brake pressure, Engaged parking brake, Fault on brake charging, Low hydraulic oil level, High hydraulic oil temperature, Overspeeding in engaged gear, High brake cooling oil temperature front and rear axles, etc.

Batteries	V	2 x 12
Battery capacity	Ah	2 x 110
Cold cranking capacity, approx	A	1,000
Alternator rating	W/A	3 135/80
Starter motor output	kW	55

Brake system

Service brake: Volvo dual-circuit system with outboard mounted, hydraulically operated, fully sealed and circulating oil cooled wet disc brakes. Four operator selectable transmission disengagement settings while braking.

Parking brake: Dry disc brake mounted on the transmission output shaft. Applied by spring force, electro-hydraulically released with a switch on the instrument panel.

Secondary brake: Dual brake circuits with rechargeable accumulators.

Standard: The brake system complies with the requirements of ISO 3450, 71/320/EEC

Number of brake discs per wheel		1
Accumulators	l (gal)	2 x 0.5+1 x 1.0 (2x0.13+1x0.26)
Accumulators for parking brake	l (gal)	1 x 1.0 (1 x 0.26)

Lift Arm System

Torque parallel linkage (TP-linkage) with high breakout torque and parallel lift-arm action.

Lift cylinders		2
Cylinder bore	mm (in)	110 (4.3)
Piston rod diameter	mm (in)	70 (2.8)
Stroke	mm (in)	756 (29.8)
Tilt cylinder		1
Cylinder bore	mm (in)	160 (6.3)
Piston rod diameter	mm (in)	90 (3.5)
Stroke	mm (in)	432 (17)

Steering System

System supply: The steering system has priority feed from a load-sensing axial piston pump with variable displacement.

Steering cylinders: Two double-acting cylinders.

Steering cylinders		2
Cylinder bore	mm (in)	70 (2.8)
Rod diameter	mm (in)	45 (1.8)
Stroke	mm (in)	386 (15.2)
Working pressure	MPa (bar)	21 (210)
Maximum flow	l/min (gal/min)	60 (15.9)
Maximum articulation	± °	40

Cab

Instrumentation: All important information is centrally located in the operator's field of vision. Display for Contronic monitoring system.

Heater and defroster: Heater coil with filtered fresh air and fan with auto and 11 manual speed settings. Defroster vents for all window areas.

Operator's seat: Operator's seat with adjustable air suspension and retractable seatbelt. The seat is mounted on a bracket on the rear cab wall and floor. The forces from the retractable seatbelt are absorbed by the seat rails.

Standards: The cab is tested and approved according to ROPS (ISO 3471), FOPS (ISO 3449). The cab meets with requirements according to ISO 6055 (Operator overhead protection - Industrial trucks) and SAE J386 (Operator Restraint System).

Emergency exit: Use emergency hammer to break window

Ventilation	m ³ /min (yd ³ /min)	9 (118)
Heating capacity	kW	16
Air conditioning (optional)	kW	75

Sound Level

Sound pressure level in cab according to ISO 6396

L _{pA}	dB	68
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External sound level according to ISO 6395 and EU Noise Directive 2000/14/EC

L _{WA}	dB	105
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Service Refill

Service accessibility: Large, electrically operated easy-to-open hood covering whole engine compartment. Fluid filters and component breather air filters are located from ground level access and promote long service intervals. Machine contronics have possibility to monitor, log and analyze data to facilitate troubleshooting. A quick-fit adapter on the hydraulic tank provides faster hydraulic oil fill.

Fuel tank	l (gal)	222 (58.6)
DEF/AdBlue® tank	l (gal)	20 (5.3)
Engine coolant	l (gal)	30 (7.9)
Hydraulic oil tank	l (gal)	90 (23.8)
Transmission oil (non lock-up)	l (gal)	21 (5.5)
Transmission oil (lock-up)	l (gal)	22 (5.8)
Engine oil	l (gal)	20 (5.2)
Axle oil front	l (gal)	35 (9.2)
Axle oil rear	l (gal)	27 (7.1)

Hydraulic system

Closed center load sensing hydraulic system with non pressurised hydraulic tank and pilot operated control valves.

System supply: Variable displacement axial piston pump supply the hydraulic system.

Valves: The central valve distributes pressure and flow out to the cooling fan, steering, brake, pilot and hydraulic system. Steering system gets priority over others.

Lift function: The valve has four positions; raise, hold, lower and float position. Automatic boom kickout position can be set to any position between maximum reach and full lifting height.

Tilt function: The valve has three functions; rollback, hold and dump. Automatic tilt out/tilt in can be adjusted to the desired bucket angle.

Cylinders: Double-acting cylinders for all functions.

Filter: Full flow filtration through 10 micron (absolute) filter cartridge.

Working pressure maximum, pump 2 for steering-, brake-, pilot- and working hydraulic system

	MPa (bar)	26 (260)
Flow	l/min (gal/min)	154 (40.7)

at	MPa (bar)	10 (100)
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engine speed	r/min (r/s)	1,900 (31.7)
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Working pressure maximum, pump 3 for brake- and cooling fan system	MPa (bar)	21 (210)
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Flow	l/min (gal/min)	33 (8.7)
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at	MPa (bar)	10 (100)
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engine speed	r/min (r/s)	1,900 (31.7)
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Pilot system, working pressure	MPa (bar)	3.5 (35)
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Cycle times		
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Lift	s	5.5
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Tilt	s	2.1
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Lower, empty	s	2.9
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Total cycle time	s	10.5
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Drivetrain

Torque converter: Single-stage

Transmission: Volvo countershaft transmission with single lever control. Fast and smooth shifting of gears with Pulse Width Modulation (PWM) valve.

Transmission: Volvo Automatic Power Shift (APS) gear shifting system with fully automatic shifting 1-4 and mode selector with 4 different gear shifting programs, including AUTO mode. Also equipped with Rimpull control to avoid wheel spin and optimize bucket filling.

Axles: Volvo fully floating axle shafts with planetary hub reductions and cast steel axle housing. Fixed front axle and oscillating rear axle. 100% differential lock on the front axle.

Transmission	Volvo:	HTE 125C Non Lock-up/ HTE 125 Lock-up
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Torque multiplication, stall ratio		2.5:1 Non Lock-up/ 2.59:1 Lock-up
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Maximum speed

1st gear	km/h (mi/h)	Converter 7.5 / Lock-up 7.5 (Converter 4.6 / Lock-up 4.6)
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2nd gear	km/h (mi/h)	Converter 15 / Lock-up 15 (Converter 9.3 / Lock-up 9.3)
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3rd gear	km/h (mi/h)	Converter 29 / Lock-up 30 (Converter 17.4 / Lock-up 18.0)
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4th gear	km/h (mi/h)	Converter 46 / Lock-up 50 (Converter 28.5 / Lock-up 31.1)
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4th gear: Shown in speedometer and limited by ECU		
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Measured with tires		20.5R25
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Front axle/rear axle		AWB 25/AWB 20
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Rear axle oscillation	± °	13
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Ground clearance	mm (in)	470 (185)
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at oscillation	°	13
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Specifications

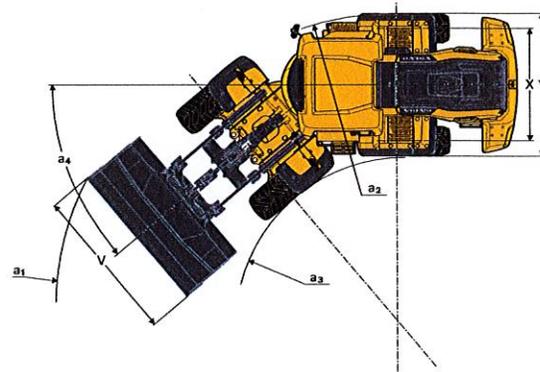
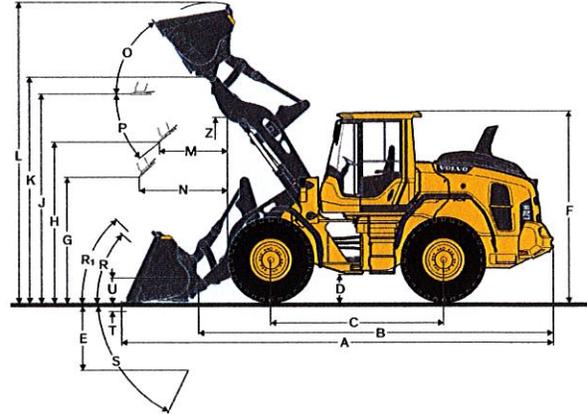
Tires 20.5 R25 L3

		L70H			
		Standard boom		Long boom	
B	mm ft in	6,080	19'11"	6,560	21'6"
C	mm ft in	3,000	9'10"	3,000	9'10"
D	mm ft in	450	1'6"	450	1'6"
F	mm ft in	3,280	10'9"	3,280	10'9"
G	mm ft in	2,134	7'0"	2,134	7'0"
J	mm ft in	3,580	11'9"	4,050	13'3"
K	mm ft in	3,870	12'8"	4,350	14'3"
O	°	56		52	
P _{max}	°	46		45	
R	°	43		44	
R ₁ *	°	48		49	
S	°	68		73	
T	mm ft in	106	0'4"	112	0'4"
U	mm ft in	450	1'6"	500	1'8"
X	mm ft in	1,930	6'4"	1,930	6'4"
Y	mm ft in	2,460	8'1"	2,460	8'1"
Z	mm ft in	3,160	10'4"	3,500	11'6"
a ₂	mm ft in	5,350	17'7"	5,350	17'7"
a ₃	mm ft in	2,890	9'6"	2,890	9'6"
a ₄	±°	40		40	

* Carry position SAE

Calculated with additional protective guarding

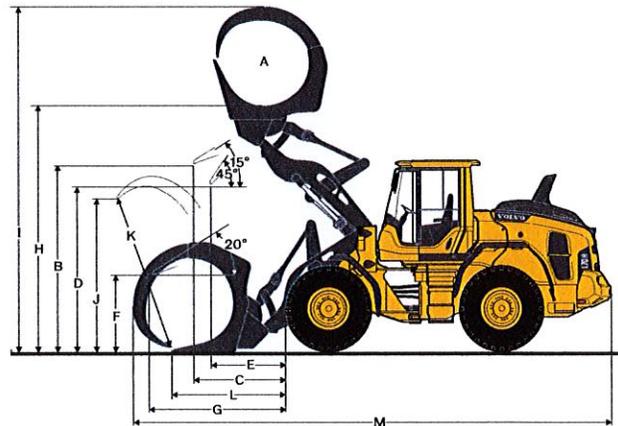
Where applicable, specifications and dimensions are according to ISO 7131, SAE J732, ISO 7546, SAE J742, ISO 14397, SAE J818



Tires: 20.5R25 L3

		L70H	
SAE-Load	kg lb	3,990	8,796
Operating weight without load*	kg lb	14,585	32,154
Grapple sales code		WLA80153	
A	m ² yd ²	1.5	1.8
B	mm ft in	3,380	11'1"
C	mm ft in	1,594	5'3"
D	mm ft in	2,870	9'5"
E	mm ft in	1,265	4'2"
F	mm ft in	1,502	4'11"
G	mm ft in	2,442	8'0"
H	mm ft in	4,378	14'4"
I	mm ft in	6,027	19'9"
J	mm ft in	2,141	7'0"
K	mm ft in	2,365	7'9"
L	mm ft in	1,800	5'11"
M	mm ft in	7,996	26'3"

* Calculated with additional protective guarding



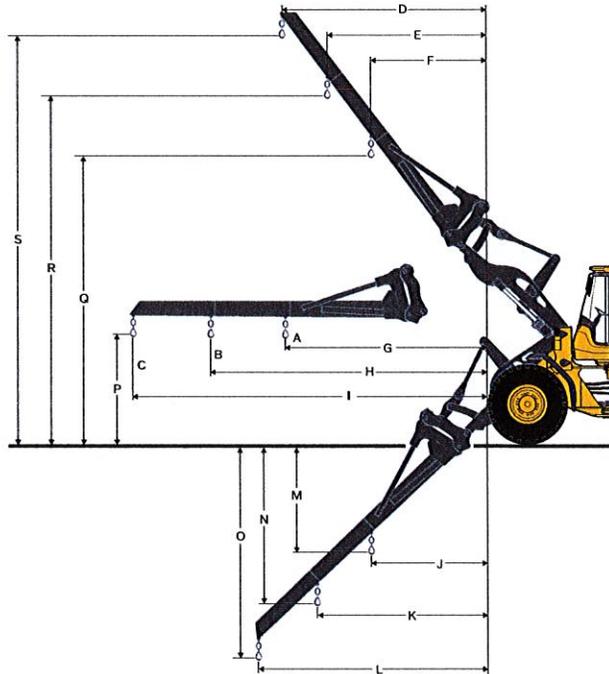
Tires: 20.5R25 L3

		L70H	
Material handling arm sales code		92007	
A*	kg lb	2,150 4,740	
B*	kg lb	1,710 3,770	
C*	kg lb	1,400 3,086	
Static tipping load, straight	kg lb	3,583 7,899	
35deg. Turn	kg lb	3,222 7,103	
at full turn	kg lb	3,116 6,870	
D	mm ft in	2,716 8'11"	
E	mm ft in	2,106 6'11"	
F	mm ft in	1,549 5'1"	
G	mm ft in	3,323 10'11"	
H	mm ft in	4,358 14'4"	
I	mm ft in	5,492 18'0"	
J	mm ft in	1,269 4'2"	
K	mm ft in	1,744 5'9"	
L	mm ft in	2,266 7'5"	
M	mm ft in	2,176 7'2"	
N	mm ft in	3,095 10'2"	
O	mm ft in	4,102 13'5"	
P	mm ft in	1,523 5'0"	
Q	mm ft in	5,302 17'5"	
R	mm ft in	6,174 20'3"	
S	mm ft in	7,129 23'5"	
Operating weight without load	kg lb	13,451 29,654	

* Op. load at full turn + tipping position

Tipping loads calculated for max. arm length

**Calculated with additional protective guarding

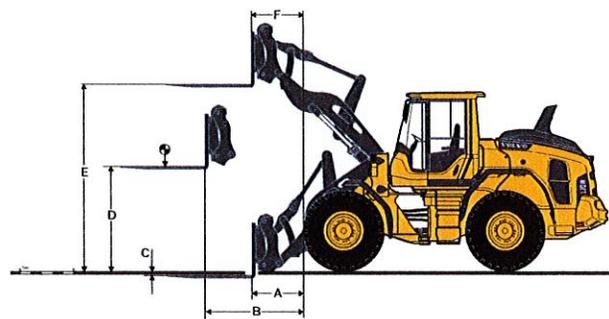


Tires: 20.5R25 L3

		L70H	
Fork frame sales code		83768	
Fork tines sales code (R/L)		80042/80044	
Static tipping load, straight	kg lb	7,576 16,702	
35deg. Turn	kg lb	6,809 15,011	
at full turn	kg lb	6,584 14,515	
at load center distance*	mm ft in	600 2'0"	
A	mm ft in	841 2'9"	
B	mm ft in	1,616 5'4"	
C	mm ft in	-52 -1'10"	
D	mm ft in	1,859 6'1"	
E	mm ft in	3,736 12'3"	
F	mm ft in	767 2'6"	
Operating weight without load	kg lb	13,531 29,831	

* Firm and level ground

**Calculated with additional protective guarding



Specifications

L70H* MICH 20.5R25 XHA2 L3	GENERAL PURPOSE										GRADING		LIGHT MATERIAL		LONG BOOM**	
	WLA87535	WLA86405	WLA86401	WLA86404	WLA86407	WLA86413	WLA92477	WLA80562	WLA80634	WLA86413						
Volume, heaped ISO/SAE	m ³ yd ³	2.3 3.0	2.2 2.9	2.0 2.6	2.2 2.9	2.3 3.0	2.2 2.9	2.2 2.9	2.2 2.9	2.2 2.9	2.2 2.9	2.2 2.9	3.4 4.4	6.4 8.4	2.2 2.9	2.2 2.9
Volume at 110% fill factor	m ³ yd ³	2.5 3.3	2.4 3.2	2.2 2.9	2.4 3.2	2.5 3.3	2.4 3.2	2.4 3.2	2.4 3.2	2.4 3.2	2.4 3.2	2.4 3.2	3.7 4.9	7.0 9.2	2.4 3.2	2.4 3.2
Static tipping load, straight at 35° turn	kg lb	9,740 21,480	8,810 19,420	8,740 19,270	8,680 19,130	8,640 19,050	9,240 20,370	7,040 15,530	8,253 18,180	8,830 19,460	-1,550 -3,400					
at full turn	kg lb	8,400 18,530	8,500 18,740	8,430 18,590	8,370 18,460	8,340 18,380	8,920 19,680	6,780 14,950	7,949 17,530	7,490 16,510	-1,390 -3,070					
Breakout force	kN lbf	87.8 19,740	91.3 20,520	92.8 20,860	88.5 20,110	87.6 19,690	98.7 22,200	62.7 14,090	71.7 16,130	53.9 12,110	-1.8 -410					
A	mm ft in	7,510 24' 8"	7,700 25' 3"	7,440 24' 5"	7,490 24' 7"	7,520 24' 8"	7,370 24' 2"	7,950 26' 1"	7,776 25' 6"	8,330 27' 4"	+470 +1' 7"					
E	mm ft in	1,210 4' 0"	1,360 4' 6"	1,140 3' 9"	1,190 3' 11"	1,210 4' 0"	1,080 3' 6"	1,670 5' 6"	1,466 4' 10"	1,960 6' 5"	+20 +0' 1"					
H	mm ft in	2,740 9' 0"	2,620 8' 7"	2,790 9' 2"	2,760 9' 0"	2,740 9' 0"	2,830 9' 3"	2,360 7' 9"	2,531 8' 4"	2,160 7' 1"	+490 +1' 8"					
L	mm ft in	5,170 16' 11"	5,220 17' 1"	5,110 16' 9"	5,170 17' 0"	5,200 17' 1"	5,100 16' 9"	4,720 15' 6"	5,455 17' 11"	5,790 19' 0"	+470 +1' 6"					
M	mm ft in	1,160 3' 10"	1,270 4' 2"	1,110 3' 8"	1,140 3' 9"	1,160 3' 10"	1,060 3' 6"	1,350 4' 5"	1,339 4' 5"	1,720 5' 8"	+20 +0' 1"					
N	mm ft in	1,660 5' 5"	1,690 5' 7"	1,640 5' 4"	1,650 5' 5"	1,660 5' 5"	1,610 5' 3"	1,570 5' 2"	1,680 5' 6"	1,720 5' 8"	+390 +1' 4"					
V	mm	2,650 104"	2,500 98"	2,650 104"	2,650 104"	2,650 104"	2,650 104"	2,650 104"	2,650 104"	2,750 108"	0 0'					
a ₁ clearance circle	mm ft in	11,800 38' 8"	11,750 38' 7"	11,760 38' 7"	11,790 38' 8"	11,800 38' 8"	11,740 38' 6"	12,320 40' 5"	11,980 39' 4"	12,410 40' 9"	+370 +1' 3"					
Operating weight	kg lb	13,950 30,760	13,920 30,700	13,950 30,770	13,990 30,840	14,000 30,880	13,720 30,260	14,240 31,400	14,193 31,290	14,730 32,490	+510 +1,120					

*Calculated with additional protective guarding. (WL86009,WL86010)

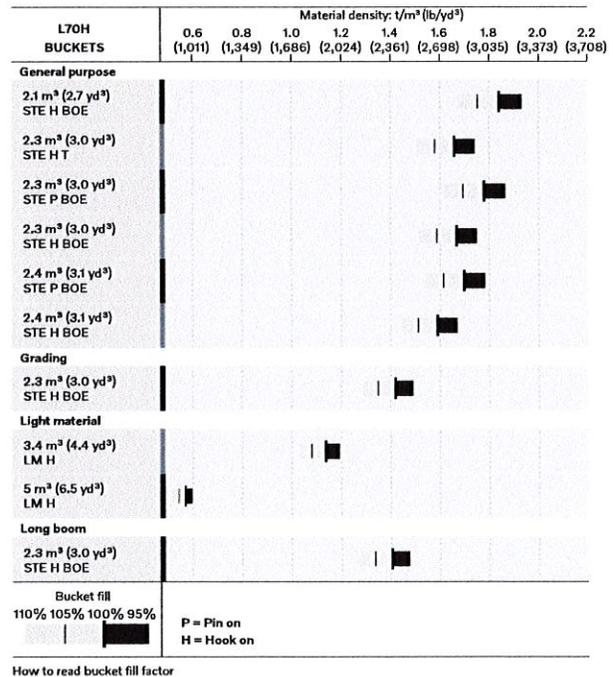
**Calculated with logging counterweight.

Note: This only applies to genuine Volvo attachments.

Bucket Selection Chart

The chosen bucket is determined by the density of the material and the expected bucket fill factor. The actual bucket volume is often larger than the rated capacity, due to the features of the TP linkage, including an open bucket design, good rollback angles in all positions and good bucket filling performance. The example represents a standard boom configuration.
 Example: Sand and gravel. Fill factor ~ 105%. Density 1.55 t/m³ (2,610 lb/yd³). Result: The 2.6 m³ (3.4 yd³) bucket carries 2.7 m³ (3.5 yd³). For optimum stability always consult the bucket selection chart.

Material	Bucket fill, %	Material density		ISO/SAE bucket volume		Actual volume	
		t/m ³	lb/yd ³	m ³	yd ³	m ³	yd ³
Earth/Clay	~ 110	~ 1.55	~ 2,610	2.5	3.3	2.7	3.5
		~ 1.45	~ 2,440	2.6	3.4	2.9	3.8
		~ 1.40	~ 2,360	2.8	3.7	3.1	4.0
Sand/Gravel	~ 105	~ 1.65	~ 2,780	2.5	3.3	2.6	3.4
		~ 1.55	~ 2,610	2.6	3.4	2.7	3.5
		~ 1.50	~ 2,530	2.8	3.7	2.9	3.7
Aggregate	~ 100	~ 1.75	~ 2,950	2.5	3.3	2.5	3.3
		~ 1.65	~ 2,780	2.6	3.4	2.6	3.4
		~ 1.60	~ 2,700	2.8	3.7	2.8	3.7
Rock	≤ 100	~ 1.80	~ 3,030	2.2	2.9	2.2	2.9



Supplemental Operating Data

Tires 20.5 R25 L3			20.5 R25 L2		600/65 R25 L3		Long boom 600/65 R25 L3	
	mm	in						
Width over tires			+8	+0.3	+96	+3.8	+96	+3.8
Ground clearance			-10	-0.4	-30	-1.2	-22	-0.9
Tipping load, full turn	kg	lb	-166	-366	-72	-159	0	0
Operating weight	kg	lb	-112	-247	+8	+18	+3	+7

Calculated with 2.3 m³ (3.0 yd³) STE P BOE, additional protective guarding

Equipment

STANDARD EQUIPMENT

Engine

Exhaust after-treatment system
 3-stage air cleaner, pre-cleaner, primary and secondary filter
 Indicator glass for coolant level
 Preheating of induction air
 Fuel pre-filter with water trap
 Fuel filter
 Crank case breather oil trap
 Exhaust heat ventilation

Tires

20.5R25

Drivetrain

Automatic Power Shift
 Fully automatic gear shifting, 1-4
 PWM-controlled gear shifting
 Forward and reverse switch by hydraulic lever console
 Rimpull control
 Indicator glass for transmission oil level
 Differentials: Front, 100% hydraulic diff lock. Rear, conventional

Electrical System

24 V, pre-wired for optional accessories
 Alternator 80A/3135W
 Battery disconnect switch
 Maintenance-free batteries
 Battery box, steel
 Fuel gauge
 Electric horn
 Instrument cluster:
 Fuel level
 Diesel Exhaust Fluid/AdBlue level
 Transmission temperature
 Coolant temperature
 Instrument lighting
 Lighting:
 Twin halogen front headlights with high and low beams
 Parking lights
 Double brake and tail lights
 Turn signals with flashing hazard light function
 Halogen work lights (2 front and 2 rear)

STANDARD EQUIPMENT

Contronic monitoring system

Contronic display
 Fuel consumption
 Diesel Exhaust Fluid/AdBlue consumption
 Ambient temperature
 Clock
 Test function for warning and indicator lights
 Brake test
 Warning and indicator lights:
 Battery charging
 Parking brake
 Warning and display message:
 Regeneration
 Engine coolant temperature
 Charge air temperature
 Engine oil temperature
 Engine oil pressure
 Transmission oil temperature
 Transmission oil pressure
 Hydraulic oil temperature
 Brake pressure
 Parking brake applied
 Brake charging
 Overspeed at direction change
 Axle oil temperature
 Steering pressure
 Crank case pressure
 Attachment lock open
 Level warnings:
 Fuel level
 Diesel Exhaust Fluid/AdBlue level
 Engine coolant level
 Transmission oil level
 Hydraulic oil level
 Washer fluid level
 Engine torque reduction in case of malfunction indication:
 High engine coolant temperature
 High engine oil temperature
 Low engine oil pressure
 High crank case pressure
 High charge air temperature
 Engine shutdown to idle in case of malfunction indication:
 High transmission oil temperature
 Slip in transmission clutches
 Key pad, background lit
 Start interlock when gear is engaged

Hydraulic system

Main valve, double acting 2-spool with hydraulic pilots
 Variable displacement axial piston pumps (2) for:
 Working hydraulics, pilot hydraulics, steering system, brakes
 Cooling fan, brakes
 Hydraulic control levers
 Mechanical hydraulic lever lock
 Automatic boom kick-out
 Automatic bucket positioner
 Double acting hydraulic cylinders
 Indicator glass for hydraulic oil level
 Hydraulic oil cooler
 Brake system
 Dual brake circuits
 Dual brake pedals
 Secondary brake system
 Parking brake, electrical-hydraulic
 Brake wear indicators
 Outboard mounted circulating oil cooled wet disc brakes on all four wheels

Equipment

STANDARD EQUIPMENT

Cab

Volvo Copilot with Rearview camera standard
 ROPS (ISO 3471), FOPS (ISO 3449)
 Single key kit door/start
 Acoustic inner lining
 Cigarette lighter, 24 V power outlet
 Lockable door
 Cab heating with fresh air inlet and defroster
 Fresh air inlet with two filters
 Automatic heat control
 Floor mat
 Dual interior lights
 Interior rearview mirrors
 Dual exterior rearview mirrors
 Sliding window, right side
 Tinted safety glass
 Retractable seatbelt (SAE J386)
 Adjustable steering wheel
 Storage compartment
 Document pocket
 Sun visor
 Beverage holder
 Windshield washer front and rear
 Windshield wipers front and rear
 Interval function for front and rear wipers
 Foot step, left side (toolbox lockable included)
 ACC control panel, with Fahrenheit scale
 Anchorage for Operator's manual

Service and maintenance

Engine oil remote drain and fill
 Transmission oil remote drain and fill
 Sliding hydraulic oil cooler and AC-condenser
 Lubrication manifolds, ground accessible
 Pressure test ports: transmission and hydraulic, quick connects
 Service platforms with anti-slip surfaces
 Quick-fit hydraulic oil fill
 CareTrack
 Telematics, 6 -year subscription
 Toolbox, lockable

External equipment

Basic fenders, front and rear
 Viscous cab mounts
 Rubber engine and transmission mounts
 Engine hood, electronically openable
 Frame, joint lock
 Vandalism lock for engine compartment
 Lifting eyes
 Tie down eyes
 Tow hitch
 Counterweight, pre-drilled for optional guards

OPTIONAL EQUIPMENT

Engine

Air pre-cleaner, cyclone type
 Air pre-cleaner, oil-bath type
 Air pre-cleaner, turbo type
 Engine auto shut down
 Engine block heater, 120V / 230V
 Fuel heater
 Fuel fill strainer
 Hand throttle control
 Max. fan speed, hot climate
 Reversible cooling fan

Drivetrain

Lock-up torque converter
 Rear axle with limited slip
 Speed limiter, 20 km/h
 Speed limiter, 30 km/h
 Speed limiter, 40 km/h

OPTIONAL EQUIPMENT

Hydraulic system

Arctic kit: Attachment locking, pilot hoses and hydraulic oil
 Attachment bracket, cast, visibility-optimized
 Attachment bracket, side-tilting
 Separate attachment locking, long boom
 Separate attachment locking, standard boom
 Single acting lifting function
 Boom suspension system
 HD load-sensing hydraulics, pump kit included
 Hydraulic fluid, biodegradable, Volvo
 Hydraulic fluid, fire resistant
 Hydraulic fluid, for hot climate
 Hydraulic, 2 functions Electro-servo, std/long boom
 Hydraulic, 3 functions Electro-servo, std/long boom
 Hydraulic, 4 functions Electro-servo, std/long boom
 Single lever control, 2 funct Electro-servo, std/long boom
 Single lever control, 3 funct Electro-servo, std/long boom
 Single lever control, 4 funct Electro-servo, std/long boom

Brake system

Parking brake alarm, audible
 Stainless steel, brake lines
 Axle oil cooler

Cab

Asbestos dust protection filter
 Automatic Climate Control, ACC
 Automatic Climate Control, ACC, corrosion protection condenser
 Cab air pre-cleaner, cyclone type
 Carbon filter - cab
 Remote door opener
 Lunch box holder
 Operator's seat, Volvo air-suspended, heavy-duty, high back, heated
 Operator's seat, Volvo air-susp, 3-point seatbelt
 Operator's seat, Premium Comfort ISRI
 Operator's seat, Premium Comfort ISRI 3-point seat belt
 Armrest, operator's seat, ISRI, left only
 Armrest, operator's seat, Volvo, left
 Safety belt, 3" (75mm) width
 Safety belt warning
 Radio installation kit including 12 volt outlet, left-side
 Radio installation kit including 12 volt outlet, right-side
 Radio installation kit, 12V, for USA
 Radio with AUX, Bluetooth and USB connection
 DAB Radio
 Subwoofer
 Forward view mirror
 Rear view mirrors, el.adjusted and heated
 Rear view mirrors, long arm right
 Rear view mirrors, el.adjusted and heated, long arm right
 Steering wheel knob
 Sun blinds, rear windows
 Sun blinds, side windows
 Timer cab heating
 Universal door/ignition key
 Window, sliding, door
 Cab, Hot applications. Roof, steel
 Fire extinguisher cab
 Outside steel protection cab
 Rear view mirrors long arm, cab
 Reinforced windshield, flat

Service and maintenance

Automatic lubrication system
 Automatic lubrication system for long boom
 Oil sampling valve
 Refill pump for automatic lubrication system
 Tool kit
 Wheel nut wrench kit

OPTIONAL EQUIPMENT

Electrical

Battery disconnect switch, additional in cab
Anti-theft device
Headlights, assym. left
Headlights, assym. right LED
Headlights, assym. left LED
Emergency stop
License plate holder, lighting
Reduced function working lights when reverse gear activated
Side marker lamps
Forward camera, colour
Rear view mirrors, long arm, right side
Rearview mirrors, adjustable, el. heated
Reverse alarm
Reverse lights
Reversing warning light
Reverse warning light, strobe lightning
Warning beacon (flasher), LED automatic
Warning beacon (flasher), LED
Seatbelt indicator, external
Working lights, attachments, 1 LED
Warning beacon LED
Warning beacon LED automatic
LED Head Light
LED tail light
LED working lights, attachments
LED working lights on cab, front and rear
LED working lights on cab, front, 2 alt. 4 LED lamps
LED working lights on cab, rear, 2 alt. 4 LED lamps
LED working lights, rear in grille, 2 LED lamps
LED working lights, front above head lamps, 2 LED lamps
LED work lights, side on cab, 4 LED lamps
LED light packages
Working lights halogen, attachments
Working lights on cab halogen, front and rear
Working lights on cab halogen, rear
Co Pilot available
Rearview camera in Co pilot
Max Boom height
Can Bus Interface
Delayed Engine Shutdown

Protective equipment

Anti-theft device
Bellyguard front
Bellyguard rear
Boom cylinder hose and tube guards
Cab roof, heavy duty
Center hinge and rear frame guard
Corrosion protection, painting of machine
Cover plate front frame, heavy-duty
Cover plate, under cab
Cover plates rear frame
Guards for front headlights
Grease nipple guards
Guards for radiator grill
Guards for tail lights, heavy-duty
Wheel/axle seal guards
Window guards, side and rear
Windshield guard

OPTIONAL EQUIPMENT

External equipment

Deleted front mudguards
Fire extinguisher
Bracket for fire extinguisher
Fire suppression system
Mudguards, full cover, rear for 80-series tires
Mudflap kit for mudguards, full cover for 80-series tires
Mudguards, full cover, rear and front/rear for 65-series tires
Mudflap kit for mudguards, full cover for 65-series tires
Footsteps front frame
Footsteps, right-hand side
Flexible rear step
Cab ladder, rubber suspended

Other equipment

CareTrack, GSM/Satellite
CE-marking
Comfort Drive Control (CDC) Electro-servo
Secondary steering
Counterweight, logging
Counterweight, signal painted, chevrons
Option for machines without dinitrol
Noise reduction kit, EU excluding decal
Sign, 50 km/h
Sign, slow moving vehicle

Tires and Rims

20.5R25
600/65R25
620/75R26 Agriculture application only
750/65R26 Agriculture application only

Attachments

Buckets:
Straight
Spade nose
High tipping
Light material
Grading
Wear parts:
Bolt-on edge
Bolt-on or weld-on bucket teeth
Segments
Log grapples
Fork equipment
Material handling arm
Snow blade
Broom
Sand spreading bucket

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
L70H2	Volvo L70H GPE Wheel Loader	\$206,369
WL20081	20.5R25* Michelin XHA2 L3	\$21,344
WL21004	4-Rims (3pc) for 20.5 or 600 tires	\$3,778
WL32017	Engine D6J (Tier 4F) US	\$0
WL30007	Fuel fill strainer	\$0
WL30024	Delayed Engine Shutdown	\$171
WL37001	Reversible cooling fan	\$1,138
WL39501	Rimpull	\$0
WL41010	Volvo Air susp, Heated, 2pt, 3" belt	\$1,878
WL42001	Air conditioning with ACC (automatic climate control)	\$6,037
WL45001	Steering knob	\$0
WL45003	Sliding window in door	\$0
WL45004	ACC Fahrenheit decal only	\$0
WL45005	Universal key	\$0
WL45023	Lunch box holder	\$0
WL45027	Anchorage manual	\$0
WL45065	Volvo Co-pilot 2 incl Camera	\$0
WL88201	Operator Coaching Start	\$0
WL54001	Back up alarm	\$0
WL65013	Max Boom Height	\$0
WL71002	Oil sampling ports	\$277
WL71005	Footsteps front frame	\$270
WL47001	Single lever hydraulic control, 2 function	\$404
WL71009	Footstep, right side	\$0
WL83004	Decals, English/Spanish	\$0
WL86013	Cover plates, rear frame	\$0
WL86009	Front belly guard	\$3,305
WL86010	Rear belly guard	\$3,783
WL86041	Frame, life time warranty	\$0
WL86034	Bracket for Fire extinguisher	\$230
WL88010	CareTrack Connectivity 4 yr Subscription	\$0
WL88018	CareTrack, GSM/Satellite	\$0
WL88020	De-activate SAT	\$0
WLA86418	104" 3.0 yd pin-on HD GP bucket (available with weld-on teeth only)	\$14,084
WLA54160277	Bolt-on adapter kit -LA11BN25	\$1,327
WLA54160465	Volvo 11GPL point kit (8)	\$751
WLA80673	Segment kit for 104" STE bolted options	\$1,381
MSRP Total		\$266,524

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
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		