

434E

Backhoe Loader



Cat® 3054C DIT Diesel Engine

Gross Power (SAE J1995) at 2200 rpm	74.5 kW/101 hp
Net Power (ISO 9249) at 2200 rpm	73 kW/99 hp
Operating Weight	8370-10 700 kg

Backhoe Digging Depth

Standard Stick	
SAE Maximum	4378 mm
Maximum	4933 mm
Extendible Stick	
SAE Maximum	5468 mm
Maximum	5974 mm

Cat® 434E Backhoe Loader

The Caterpillar® E-Series Backhoe Loader – The Next Generation

Equal Size Tires

The 434E is equipped with Equal Size Tires giving excellent performance in soft underfoot conditions common to many worksites, for example agriculture. EST offers many advantages over non-EST BHL's.

- Improved flotation on soft ground
- Greater loader lift capability
- 1.15 m³ loader bucket
- More stable roading characteristics
- Less soil compaction
- More lift height

pg. 5

Caterpillar Work Tools

Caterpillar work tools have been designed around the performance and demands of the whole E-Series range.

- Provides maximum versatility for all jobsite applications.
- All loader tools fully compatible with previous generation machines. Hoe tools are compatible with D-Series.

pg. 11

Operator Station

The E-Series Cab offers an improved operator environment, with increased visibility, ergonomics and comfort. The pod-mounted joystick controls offer increased comfort, control and versatility.

- Pod mounted joystick controls
- Automotive style finish
- Stylish and functional curved glass maximises space within the cab
- Excellent 360° visibility
- Improved HVAC performance
- Air Suspension seat
- Low effort well placed controls
- Plenty of personal storage space
- Exceptional operator comfort
- 2 Cab options

pg. 8

Backhoe Versatility and Performance

- Excavator style backhoe reaches over obstacles, for easier, faster truck loading in confined spaces
- Industry leading 205° High Rotation Linkage gives excellent clamping and straight wall trenching
- Extending outer section ensures maximum wear protection on the E-stick
- Optional Quick Coupler for maximum versatility

pg. 10

Caterpillar's 434E – The Next Generation

Developed with over 20 years in the Backhoe Loader industry, the 434E is designed to exceed customer expectations.

More performance, versatility and comfort than ever before gives the 434E the edge needed in a harsh and competitive environment. Along with you, it's up to the challenge.

See your Cat dealer and try out The Next Generation of Backhoe Loaders from Caterpillar.



Powertrain

The 434E now has 40 kph roading speed as standard. The proven Cat 3054C engine delivers 98 hp net. Coupled with the Autoshift transmission, it provides all the performance needed.

- Standard 3054C DIT engine (67 kW)
 - Engines meet EU directive 97/68/EC Stage II emissions regulations
 - Durable gear driven water pump
 - Parts commonality with other Cat machines
 - Single fuel filter/water separator for lower servicing costs
 - Single location access to service refill points
 - Standard All Wheel Steer
- pg. 7**

Load Sensing, Flow Sharing Hydraulic System

- Flow-sharing hydraulic valves give improved implement control exactly where it is needed
 - Load sensing hydraulics provide full implement force, at any engine speed
 - Cat exclusive high pressure XT hose
 - O-ring face seals for reliability
- pg. 12**

Serviceability

- Improved fully opening hood provides greater access to engine compartment
 - Wear Pad adjustment design on Stabilizers and E-Stick for quick, easy maintenance
- pg. 13**

Pilot Hydraulic Joystick Controls

Excavator style Pilot Hydraulic Joystick Controls are fitted as standard to both the Loader and Hoe controls on all 434E Backhoe Loaders. The low effort controls are easy to use, reduce operator fatigue, and greatly improve visibility to the rear. Benefits include:

- Pod mounted for multi-positioning
 - Ergonomic, low effort joysticks
 - E-Stick thumb control on hoe joystick (if option is fitted)
 - In-cab Pattern Changer as standard
 - MP/Auxiliary controls on Loader joystick
- pg. 5**

Loader Versatility

The Cat Parallel Lift Loader.

- Powerful loader breakout force
 - 1.15 m³ loader bucket
 - Divergent lift arms and low profile hood for maximum visibility to the tool
 - Robust design reduces torsional flex when lifting heavy objects
 - Standard Return To Dig
 - Excellent Work tool versatility
 - Optional hydraulic quick coupler
 - Standard self levelling
- pg. 6**

Complete Customer Service

Your Caterpillar dealer offers a complete machine aftercare service, such as Customer Support Agreements, and can tailor your purchase to exactly suit your needs. Your dealer can also offer competitive finance packages to ensure that you can plan everything to enable the best return on your new asset. **pg. 13**



Features

Customer driven improvements are designed into the 434E.

Lower Operating Costs

The 434E has improved Stabiliser and E-Stick wear pad adjustment. Exterior wear pad adjustment ensures easy maintenance of the stabilizer and E-Stick, lowering operating costs. This equates to less machine downtime and more convenience for the operator.

All Wheel Braking

All Wheel Braking is standard on all 434E Backhoe loaders. When driving in two wheel drive, applying the brakes engages four wheel drive, maximising brake effectiveness. Releasing the brakes returns the transmission to two wheel drive. This is particularly useful when roading. This effective system works well in hazardous, slippery or steep surfaces. Braking modes are controlled by the All Wheel Drive Switch.

Improved Weight Distribution

The 434E has been designed with improved weight distribution. The design coupled with a slightly longer wheelbase ensures optimal balance and handling, particularly when roading. This is achieved with no loss in turning circle.

Pattern Changer

The 434E is equipped with a standard in-cab pattern changer, allowing operators to choose between either Backhoe ISO or X patterns. This is now located within reach of the operator, ensuring the 434E will suit either type of backhoe operation.

187 Litre Fuel Tank

Responding to customers needs, the 434E is designed with a large 187 litre fuel tank. Along with the efficient Cat engine and hydraulic system, this ensures longer periods between fill ups and less inconvenience.

Caterpillar Immobilizer System

Machine theft has serious repercussions for your business, such as loss of business, higher insurance costs and inconvenience. The Cat Immobilizer System is a diesel engine immobiliser system, designed to provide theft protection. The system meets Thatcham approval and PTAG attack time requirements and a premium discount may be available from certain Insurance companies (see your Cat dealer for details). The system uses the same key but has a one touch pad for easy disarming.

Electro-Deposition Coating

Your 434E has been protected by an undercoat of electro-deposited (E-Coat) primer, which completely seals each metallic component and offers a superlative degree of protection from damage and corrosion. Coupled with the high solids polyurethane top coat, your 434E will stay looking good for longer, ensuring optimum resale value.



Equal Size Tires (EST)

The 434E EST characteristics offer more jobsite opportunities for the operator

Improved Flotation

The 434E can operate in work areas that push the limits of standard unequal size tire machines. The high flotation and lower ground pressure offered by the tires allows the machine to work in very poor underfoot conditions, such as Greenfield construction sites, agricultural applications such as farm maintenance. This machine can get to areas which are off limits to a lot of other type of machine.

Increased Loader Performance

The 434E has excellent lift height, which coupled with the larger bucket and powerful breakout forces, enable the 434E to perform high productivity loading duties, such as hopper charging, bulk material transfer, grading and loading.

Tire Options

The 434E is available with either 24" or 28" tires, in bias or radial ply variants. This allows the correct choice of tire to suit any application or budget.

Standard All Wheel Steer (AWS)

The machine is equipped with standard AWS, giving the machine an excellent turning circle and good manoeuvrability in tight spaces. AWS offers Circle Steer, Crab Steer and Independent Rear Manoeuvring modes.



Pilot Operated Joystick Controls

Standard on the 434E, Pilot controls reduce fatigue, improve visibility and increase versatility.

Joystick Controls

Excavator style joystick controls provide smooth modulation and are ergonomically designed for low effort control and operator comfort. The location of the controls naturally position the operator comfortably into the back of the seat. The loader joystick features optional multi function controls and the RH hoe joystick features a thumb operated extendable stick control, eliminating pedals on the floor.

Pattern Changer

The 434E has a standard hoe pattern changer within the cab. This allows the operator to choose between Caterpillar and Excavator patterns, with an easy push of a switch.

Stabilizer Controls

Pilot operated, remote stabiliser controls are available with optional Auto-Up feature, reducing cycle times and improving visibility to the rear.

Multi Position Joystick Pods

The joysticks are pod-mounted, allowing multi positioning, fore and aft for the controls. This allows the operator to move forward when excavating close to the rear of the machine, and have a clear view to the trench.

Visibility

With no rear console impeding vision, the operator has an unobstructed view to the working area.



Loader Versatility

The 434E Loader now has even greater performance.



Powerful Loader Performance

The 434E Parallel Lift Loader offers self levelling as standard, ensuring faster loading cycles. Available with either a General Purpose or Multi Purpose bucket, the 434E can be matched to your needs precisely. As ever, the work tool visibility is excellent with the narrow sloping hood and divergent loader arms allowing a clear line of site to the bucket edges. The large torque tube means the torsional stiffness, needed when picking up irregular shaped heavy objects. The arms have been redesigned to further Loader performance.

Joystick Control

The loader joystick is ergonomically placed for operator comfort, and controls the multi-purpose bucket, auxiliary hydraulics, when these options are fitted. All Wheel Steer control is located on the loader joystick.

Ride Control

Caterpillar's proven Ride Control system is an option designed to reduce machine pitching and bouncing giving operators a smooth ride in all applications, including load and carry, roading, or simply moving around the jobsite. An accumulator acts as a shock absorber to reduce machine pitching and provide a smoother ride over rough terrain. The system is engaged by a switch on the front console.

Return to Dig

Your 434E is equipped with a standard Return to Dig system. This system reduces loading cycle times by bringing the loader bucket back to the dig position with an easy pull of the lever. By the time the loader bucket is at ground level, the bucket is angled correctly for the next load or cut.

Hydraulic Quick Coupler Option

The 434E is available with an optional quick coupler, allowing greater loader versatility with a wide range of Caterpillar work tools.



Power Train

434E has a 40 kph transmission as standard-less time on the road, more time on the jobsite.



Optional Auto-Shift Transmission

Work faster with the optional Auto-Shift transmission. The Auto-Shift transmission provides automatic shifting between five forward and three reverse gears. There is no floor mounted shift lever, so the operator has more floor space and better access through the right hand door.

Standard All Wheel Steering (AWS)

The 434E is equipped with AWS, enabling 2WS, Circle Steer, Crab Steer and Independent Rear Steering for those tight situations. This makes the machine far more manoeuvrable in tight work areas. The unique Independent Rear Steering ensures even greater manoeuvrability.

Caterpillar 3054C Engine

The 434E is equipped with the standard 3054C DIT engine. The 4 cylinder, 4 stroke direct injection diesel engine is equipped with standard glow plug starting for optimal cold weather performance. This provides reliable starting performance down to -26°C. The engine features a reliable gear driven water pump, for improved durability. All Caterpillar backhoe engines conform to EU directive 97/68/EC Stage II emission regulations.

Air Filter

A dry type axial seal air cleaner with automatic integrated dust ejection provides more efficient pre-separation. Rolled air filters allow consistent linear air flow with reduced installation space.

Axles and Brakes

The Caterpillar rear axle is an enclosed design with a wet multi-plate Kevlar braking system. This system is oil immersed and self adjusting, and allows operation in the harshest environments. The system has dual brake pedals for split braking in tight corners.

Operator Station

The all new E-Series cab. Comfort, Visibility, Style-Designed in!



The 434E Cab is Designed with Today's Operator in Mind

The E-Series cab is designed to provide maximum comfort, ease of operation, and overall style for today's demanding operator. The design incorporates curved glass for improved interior space and visibility, and the cab is widened for better performance when turning from one mode of operation to the other. Cab comfort is enhanced with the first-class Cat air suspension seat designed to reduce fatigue. Excellent

ergonomics ensure that all controls are within easy reach of the operator, and tinted glass is standard in all cabs.

Other features such as standard air-ride seat and remote stabiliser controls, large adjustable vents throughout the cab, and clear gauges provide the operator with an operating environment designed to maximize comfort and productivity.



Vibration

Caterpillar understands that backhoe loaders work in some of the harshest environments. By controlling normal machine vibrations caused by these harsh conditions, operator efficiency and productivity are improved. The 434E has features, both standard and optional, that reduce vibration.

HVAC System

The 434E benefits from a new, optional, more powerful air conditioning system, which, with its new improved ventilation flow to the operator, ensures the operator stays cool. The ventilation also provides plenty of demisting/defrosting/ heating capability.

Work Lights

The 434E has adjustable front and rear Work Lights. This allows the operator to direct the light wherever needed, providing maximum illumination to the work area.

Cab Air Filter

The 434E has an easy access cab air filter, situated within the RH rear fender. The cab air intake is positioned on the central post, high up to minimize dust intake into the air filter.

Cab Mounts

The cab shell is attached to the frame with resilient mounts, reducing vibration and sound.

Cab Options

The 434E is available in 2 cab options, providing the best choices to suit individual operator needs. There is standard or deluxe cab available. See pg. 22 for details.

Cat Air Suspension Seat

The major interface between the machine and the operator is optimal, and the Cat air suspension seat is an excellent asset to the new E-Series cab design. The seat is designed to move in an arc around the foot pedals, ensuring the operator doesn't have to compensate for pedal distance as the seat moves up and down.

Backhoe Performance

The new E-Series Backhoe improves performance and serviceability



Excavator-style Backhoe

The instantly recognisable Cat excavator boom has more than just good looks – it outperforms straight boom designs too. Whether close-up truck loading on a single road carriageway, or digging over obstacles such as walls, the excavator boom outperforms the rest. Combine this versatility with the powerful breakout forces, the controllability of the load-sensing, flow-sharing hydraulic system, and you have one of the best Backhoes' in the industry. The boom is a narrow design, ensuring maximum visibility to the work tool.

Extendable Stick

The 434E is available with improved extendable stick. Redesigned with the sliding outer section, this design keeps the wear pads out of the dirt, extending adjustment intervals. When adjustment is necessary, the accessible wear pad design takes minutes to adjust, without the need to disassemble the E-Stick. The sliding outer design allows excellent material clamping abilities whereby the E-Stick can still be retracted with a full bucket.

Slider Frame and Swing System

The 434E is designed to make necessary maintenance easy to perform. The E-Series cast slider frame has exterior lock clamps, with no backhoe disassembly needed when servicing. The Swing Frame/Boom Foot pins have replaceable bushings in the bores.

Caterpillar Cushion Swing System

The 434E is equipped with Cat Cushion Swing System, which enables very fast trenching by damping the boom oscillation down when returning to trench with the hoe.

Increased Performance

The boom and stick have redesigned geometry and higher stick forces, which equates to improved digging performance.



Caterpillar Work Tools

Enhance the versatility of your 434E with a wide choice of tools on offer to suit your needs.

Backhoe Buckets

Cat offers a huge variety of hoe buckets to meet your requirements, including:

- Standard Duty Bucket. Used in easy to penetrate, low impact, moderately abrasive soils.
- Heavy Duty Bucket. Used for digging fragmented rock, frozen ground and highly abrasive materials.
- Extreme Service Bucket. Used in highly abrasive, high impact soil.
- High Capacity Bucket. Same durable construction as the HD bucket, but longer tip radius provides increased fill capacity.

Durability

Caterpillar backhoe buckets offer superior durability with the following features:

- Thick cutting edges.
- DRS (Diagonal Retention System) means easier replacement of pin on teeth and greater strength.
- Thick wear material on the side plates for better reinforcement and less wear.
- ID plate on all buckets showing part number, GET sizes and machine compatibility.

Sizes

The E-Series offers a full range of sizes, from a 9"/228 mm Cribbing bucket for cable trenching right up to large capacity 36"/914 mm buckets for mass excavation.

Quick Coupler – Loader and Hoe

A hydraulic quick coupler is available for the Loader, and a mechanical quick coupler option is available for the Hoe. For operators who require fast tool changes, both quick coupler options can save a lot of time, money and effort.

Hydro-Mechanical Work Tools

Caterpillar has designed a range of hydro-mechanical tools carefully matched to the machine for optimum performance, including:



Hoe

- H70/90 Hydraulic Hammers
- Auger
- Vibratory Plate Compactor
- Cold Planer

Loader

- Angle Broom
- Pickup Sweeper

Please see your Cat dealer for the full range of tools available for particular machine combination.

Hydraulics

Load sensing, flow-sharing system matches power and flow supply to demand – where you need it, when you need it.



Hydraulic Performance

It's rare that you'll be working at full production 100% of the time, so why should the machine be working flat out, using more fuel, making more noise, and increasing wear? The 434E has a load-sensing, closed center hydraulic system, which closely matches power and flow to the demand needed by the implements. So whether you're in full trenching mode, or delicately digging around services, you are in control. In applications such as loading and carrying, speed is important, and system will match the flow needed to get the job done quickly and efficiently. As there is minimal demand on the system unless needed, there are less parasitic hp losses and more power available for rimpull – providing better loading and roading.

Flow Sharing Valves

The 434E also features flow-sharing hydraulic valves, ensuring the correct flow of oil reaches the implement cylinders, providing greater control and eliminating oil starvation when operating multiple functions, such as when grading with the backhoe.

Hardware

The 434E is equipped with a highly efficient variable displacement piston pump, Cat's XT hoses and O-ring face seal fittings, ensuring a robust system. XT hose is constructed from four over-lapping wire spiral wraps, ensuring excellent durability and resistance to damage from pressure spikes and hydraulic pulsing.

Serviceability

Lower operating costs mean a better return on your bottom line.

Reduced Maintenance

The 434E is equipped with a flip open hood, allowing access to all check/fill points, air cleaner, washer bottles, visual indicators etc. The E-Series carries on the tradition with sealed for life axle oscillation, driveshaft universal joints, trunnions etc. Daily maintenance, which can be a chore for the busy operator, is kept to a minimum on the 434E.

Boom and Stick Design

The Boom and Stick design allows all wear adjustment to be done with Stick in-situ, using a simple wedge adjustment mechanism – no dismantling to shim the wear pads. The Stabiliser legs are also externally adjustable, reducing machine down time and inconvenience.

Cat Filters

All Cat filters are vertically mounted for spill free servicing and reduced oil contamination. They are also low micron filters, filtering even tiny particles from the oil and keeping the engine, transmission and hydraulic system running smoothly for years.

Scheduled Oil Sampling

Your Cat dealer will be able to provide the Caterpillar Scheduled Oil Sampling (S•O•SSM) service. This enables your dealer to analyze wear before problems arise, so that premature failure can be avoided, and corrective action can take place to reduce costs and downtime.



Complete Customer Support

Lower operating costs with your dealer's excellent services and options.

Customer Support Agreements (CSA's)

Your Cat dealer can offer a comprehensive range of CSA's which can be individually tailored to suit your finances and requirements. Dealers can offer a range of options from a full Preventative Maintenance with S•O•S package to a Parts Only CSA. Protect your valuable investment and know exactly what your monthly payments will be to help you run your business.

Finance

Have you explored the range of options available from your dealer to finance your machine? They can offer a selection of attractive packages tailored exactly to your requirements.

Machine Selection

Your dealer can help guide you with your machine purchase decision, based on your requirements and help keep operating costs to a minimum. Is the machine you have in mind exactly the best for your job, or could other attachments be more suitable?

Operating Techniques

Your dealer can advise operating techniques for your machine which will minimize wear and tear, maximize productivity, and lower owning and operating costs.



Remanufactured components (Reman)

Sometimes, the most cost effective way to repair the machine is with remanufactured components. Reman components are rebuilt to original specification at Cat's Reman facility, using genuine parts and skilled technicians. Reman parts are guaranteed for 1 year

Engine

Caterpillar 3054C turbo, direct injection, four cylinder diesel engine.

Rated Power	2200 rpm
Gross – SAE J1995	74.5 kW/101 hp
Net – ISO 9249	73 kW/99 hp
Net – 80/1269/EEC	73 kW/99 hp
Net Torque Rise at 1400 rpm	31%
Bore	105 mm
Stroke	127 mm
Displacement	4.4 liter

- All engine horsepower (hp) are metric including front page.
- Net power advertised is the power available at the fly wheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- Engine will operate up to a maximum altitude of 3000m
- Meets Stage II EU Emission Directive 97/68/EC.

Features

- Three ring pistons made of lightweight silicon/aluminium alloy for strength and maximum thermal conductivity.
- Forged, chrome/molybdenum-steel crankshaft with nitro-carbonized journals.
- Front and rear crankshaft oil seals are ‘lip’ type Viton and PTFE designs featuring an integral dust lip.
- Heat resistant silicon-chrome steel intake and STELLITE faced exhaust valves are used for long engine life.
- Cylinder block is high strength, cast iron alloy of deep-skirt, monobloc design for increased strength and long life.
- Cylinder head is high strength, cast iron alloy construction with extra duty wall and head thickness. Intake and exhaust ports are precision cast to promote optimum gas flow.
- Direct injection fuel system provides accurate fuel delivery. Self priming electric lift pump for improved cold start capability. One filter fuel system for reduced maintenance costs.
- High low engine torque for better machine performance.
- Dry type, axial seal air cleaner with automatic, integrated dust ejection providing more efficient pre-separation.
- Direct electric 12 volt starting and charging system with 750 CCA group 31 maintenance free battery.

Hydraulic System

Load-sensing, closed center system.

Variable flow, closed center, load-sensing system provides full hydraulic force to cutting edges at all engine speeds. Provides low fuel consumption and low effort controls.

Type

Closed-center

Pump type

Variable-flow, axial-piston

Pump capacity 156 lpm at 2200 rpm

System pressure 249 bar

Brakes

Fully enclosed, hydraulic, multiple discs.

Features

- Inboard oil immersed, hydraulically actuated multiple Kevlar discs on final drive input shaft.
- Completely enclosed and sealed.
- Self adjusting.
- Foot operated dual pedals can be interlocked for roading.
- Parking/secondary brakes are independent of the service brakes. Parking brake is mechanically applied through a hand lever in the right hand side console.

Meets ISO 3450:1996 requirements.

Axles

Standard All Wheel Drive and All Wheel Steer.

Features

- Heavy duty rear axle with self adjusting inboard brakes, optional differential lock, and final drive.
- All Wheel Drive (AWD) is engaged by front console panel switch or by brake pedal during all wheel braking operation. AWD can be engaged on the go, under load, in any gear, forward or reverse. AWD has outer final drives for easy maintenance.
- AWD is pendulum mounted and permanently sealed and lubricated, requiring no daily maintenance. Also features double acting steering cylinder with 19° steering angle for increased maneuverability.
- All Wheel Steer.
- Equal Size Tires.

All Wheel Steer

Fully hydrostatic steering.

Full hydrostatic steering controlled by a hand metering unit. There are three operator-selected modes to maximise machine manoeuvrability:

- Two wheel steer mode
- Circle-steer mode
- Independent rear-manoeuving mode

Secondary steer system available to meet roading regulations in various countries and to meet ISO 5010.

Type	Front wheel	
Power Steering	Hydrostatic	
Cylinder, one (1)	double-acting	
	Front	Rear
Bore	85 mm	85 mm
Stroke	48 mm	63 mm
Rod diameter	42 mm	42 mm

Turning Circle

Two wheel steer	16 550 mm
Circle-steer	11 770 mm
Independent rear-manoeuving	11 060 mm

Operator Station

ROPS/FOPS is standard.

ROPS (Roll Over Protective Structure) offered by Caterpillar for this machine meets ROPS criteria ISO 3471:1994 and FOPS (Falling Objects Protective Structure) criteria ISO 3449:1992.

Transmission

Caterpillar Autoshift transmission.

The standard Autoshift transmission provides five speed forward and threereverse, full synchromesh in all gears. Constant mesh gears on all ratios permit on the go shifting of all gears up or down. Neutral start provision prevent starting while shuttle is engaged.

Torque converter free wheel clutch allows the converter stator free wheel during high speed, low load conditions such as roading.

Transmission disconnect

Hand operated power disconnect for easy, on the go shifting and full engine rpm when in the loading cycle.

Forward/Reverse electric power shuttle

Conveniently places, hand operated lever provides instant direction changes between forward and reverse through power hydraulic clutches.

Torque converter

Single stage 2.64 stall ratio.

Travel Speeds

Travel speeds of All Wheel Drive backhoe loader at full throttle, when equipped with 16.9 x 24 tires.

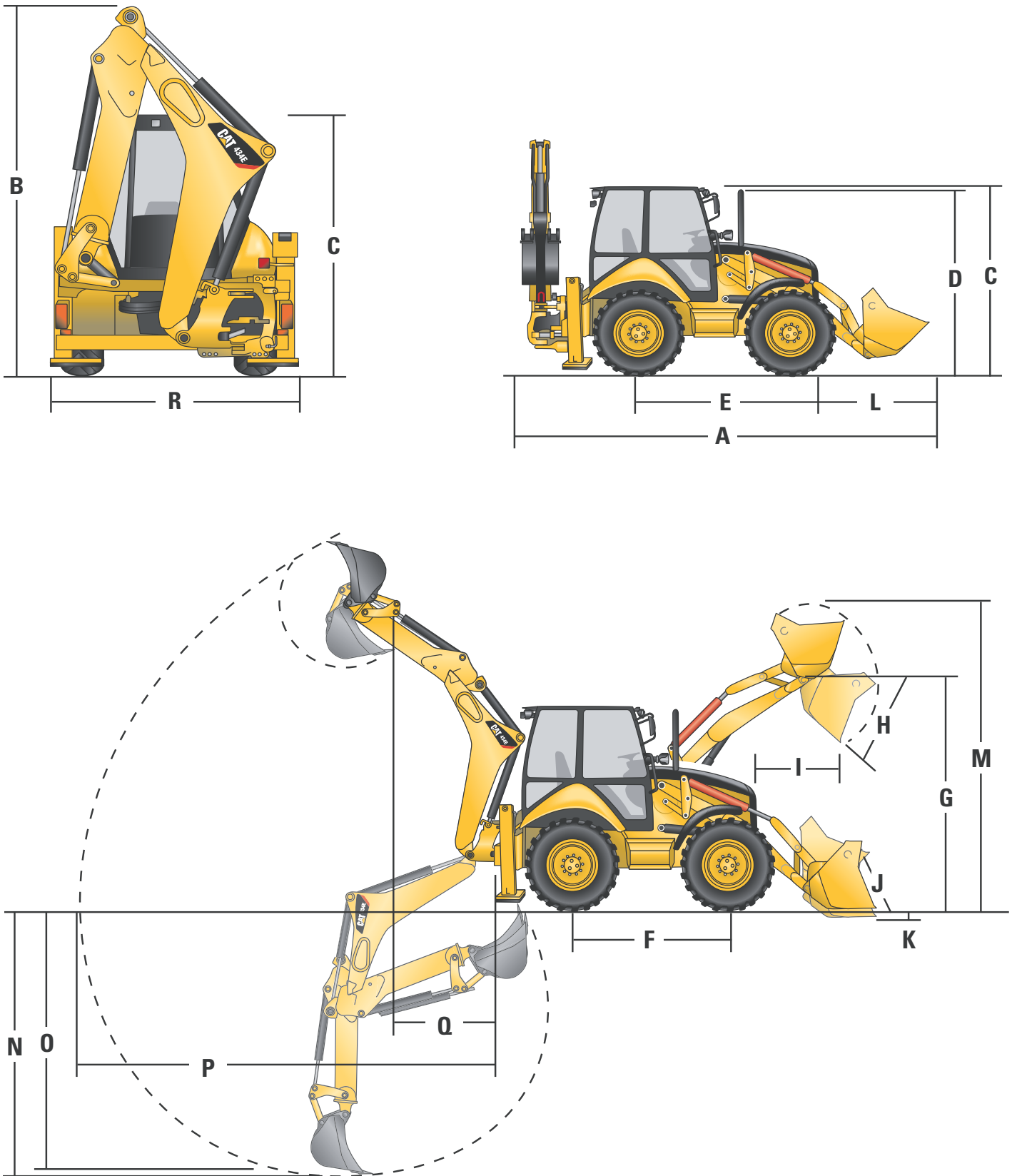
	Autoshift (optional)
Forward	kph
1st	5
2nd	9
3rd	18
4th	25
5th	38
Reverse	
1st	5
2nd	9
3rd	18

Service Refill Capacities

	Liters
Cooling System	24.0
Fuel tank	187.0
Engine with oil filter	7.6
Transmission	
AWD	19.5
Transmission (Powershift)	
AWD	20.0

	Liters
Rear Axle (Steerable)	
Center Housing	16.0
Center Housing Additive	0.5
Wheel End/Final Drive (volume per side)	1.7
Front Axle (AWD)	
Center Housing	11.0
Wheel End/Final Drive (volume per side)	0.7
Hydraulic System (min/max)	79/99
Hydraulic Tank	38

Dimensions – Parallel Lift Loader



Machine Dimensions

		General Purpose	Multi Purpose	Multi Purpose with forks
A Overall transport length	mm	6120	6099	6099
Overall length (loader on ground)	mm	6120	6099	6099
Overall transport length S-Stick	mm	6120	6105	6105
Overall transport length E-Stick	mm	6120	6105	6105
B Overall transport height (standard stick)	mm	3623	3623	3623
Overall transport height (extendible stick)	mm	3647	3647	3647
Overall width	mm	2368	2368	2368
C Height to top of canopy/cab	mm	2801	2801	2801
D Height to top of exhaust stack	mm	2733	2733	2733
Height to loader hinge pin (transport)	mm	402	402	402
Ground clearance (minimum)	mm	325	325	325
E Rear axle centerline to front grill	mm	2743	2743	2743
Front wheel tread gauge	mm	1914	1914	1914
Rear wheel tread gauge	mm	1914	1914	1914
F Wheel based (AWD)	mm	2200	2200	2200

Dimensions and Performance – Loader Bucket

		General Purpose	Multi Purpose	Multi Purpose with forks
Capacity (SAE rated)	m ³	1.15	1.15	1.15
Width	mm	2434	2434	2434
Lift capacity at maximum height	kg	3508	3205	3008
Breakout force	kN	54	53	52
Tipping load at bucket load point	kg	6115	5844	5675
G Maximum hinge pin height	mm	3442	3442	3442
H Dump angle at full height		45°	45°	45°
Dump height at maximum angle	mm	2666	2681	2681
I Dump reach at maximum angle	mm	903	889	889
J Maximum bucket rollback at ground level		41°	41°	41°
K Digging depth	mm	229	229	229
Maximum grading angle		107°	107°	107°
Width of dozer cutting edge	mm	–	2434	2434
L Grill to bucket cutting edge, carry position	mm	1575	1560	1560
M Maximum operating height	mm	4339	4409	4872
Jaw open maximum	mm	–	864	864
Bucket jaw clamping force	kN	–	56	56
Weight (not including teeth)	kg	438	744	948

Dimensions and Performance – Backhoe

		Standard Stick	Extendible Stick	
			Retracted	Extended
N Digging depth, SAE maximum	mm	4378	4420	5468
Digging depth, maximum	mm	4933	4972	5974
O Digging depth, 610 mm flat bottom, SAE maximum	mm	4337	4379	5432
Digging depth, 610 mm flat bottom, maximum	mm	4906	4947	5952
P Reach from swing pivot at ground line	mm	5638	5678	6687
Loading height	mm	3632	3574	4142
Q Loading reach	mm	1875	1975	2878
Swing arc		180°	180°	180°
Bucket rotation		205°	205°	205°
R Stabilizer width	mm	2368	2368	2368
Bucket dig force	kN	57	56	56
Stick dig force	kN	43	43	31
Total side shift travel	mm	1258	1258	1258

Weights

Standard parallel lift loader, with 1.15 m³ general purpose loader bucket, 610 mm standard duty backhoe bucket, 80 kg operator and a full fuel tank.

	kg
Operating weight (range)	8370-10700
Standard machine weight	8460
ROPS canopy	-260
Autoshift	50
Air conditioning	48
All Wheel Drive	106
Multi-purpose bucket 1.15 m ³	
With fold-over forks	950
Without fold-over forks	791
Extendible stick (excludes front counterweight)	229
Counterweights	
Base	115
Stackables – One	235
Stackables – Max	485

Minimum Counterweight

Recommendations:

Powertrain AWD	
General Purpose	250
Multi Purpose	Base
Multi purpose with fold-over forks	Base
Extendible Stick	
Powertrain AWD	
General Purpose	485
Multi Purpose	235
Multi Purpose with fold-over forks	115

Total gross vehicle weight not to exceed 10 700 kg.

Cab Features

	Standard	Deluxe
RH opening door with opening window	✓	✓
LH opening door with opening window	✓	✓
2 rear side fixed windows	✓	
2 rear side opening windows		✓
Standard air suspension seat	✓	
Deluxe air suspension seat		✓
8 working lights	✓	✓
Floor mat	✓	✓
LH storage console	✓	✓
Tilt steering column	✓	✓
Exterior rear view mirror	✓	✓
Beacon socket (2)	✓	✓
Internal power socket	✓	✓
Radio ready headliner	✓	✓
Instrument cluster display gauge	✓	✓
Sun visor	✓	✓
Cat contravision		✓
Steering wheel knob	✓	✓
Vandal guard	✓	✓
Cab heater	✓	✓
Cab air conditioning	optional	optional
Auto-up stabilizers	optional	optional
Seat belt (50 mm)	✓	✓

optional optional optional

Standard Equipment

Standard and optional equipment may vary. Consult your Caterpillar dealer for specifics.

Air cleaner, dry type, axial seal with pre-cleaner and filter condition indicator	Front axle, pendulum mount	Mirrors, external (2)
All Wheel Drive	Front grill with bumpers	Pilot stabilizer controls
All Wheel Steer	Front headlights	Power receptacle, 12 V (2)
Alternator, 120-amp, 12 volt	Front and rear windshield wipers	Power steering, hydrostatic
Antifreeze (to -37°C)	Gauges: Coolant temperature, fuel level, tachometer, hour meter, torque convertor, oil temperature	ROPS cab with heater, defroster, pressurizer and cab recirculating fan
Audible system fault alarm	Ground line fuel fill with 187 liters capacity	Seat belt, retractable (50 mm)
Backhoe, 4378 mm dig depth, side-shift, excavator-style backhoe, 2 lever control	Grouser style stabilizer shoes	Seat, air suspension with fabric or vinyl seat cover
Battery, maintenance free, 750 CCA	High ambient cooler package	Spin-on fuel, engine, hydraulic and transmission oil filters
Boom, transport lock	Hydraulic oil cooler	Starting system, thermal aid
Brace, lift cylinder	Indicators: Air cleaner service, brake on, engine coolant, hydraulic oil level sight gauge, oil pressure	Stop and tail lights (2)
Brakes, Kevlar disc, oil immersed	Instrument panel lights	Swing transport lock
Caterpillar 3054C DIT (67 kW)	Key start/stop with auxiliary position	Tilt steering column
Coat hook	Left side doors with lock	Tires (2 front, 2 rear)
Electro-hydraulic slide frame lock	Lifting eye, backhoe	Torque convertor
Engine enclosure	Lights, working (2 front, 2 rear)	Throttles, hand and foot
Fan, cooling and fan guard	Load sensing, variable flow system with axial piston pump	Transmission, four-speed synchromesh
Fast reversing shuttle, all gears		Transmission neutralizer switch
Flashing hazard, signal lights		Warning horn, front electric
Floor mat, rubber		Water separator
		Working, 8 lights

Optional Equipment

Optional equipment may vary. Consult your Caterpillar dealer for specifics.

Air conditioning	Guards	Mirror, exterior rearview, large
Alarm, back up	AWD driveshaft	Operators station
Attachments, front loader	Teeth (GP/MP)	Canopy
General purpose bucket 1.15 m ³	Rear lights, roading	Ride control
Multi purpose bucket 1.15 m ³	Hydraulic valves, loader	Rotating beacon
1.15 m ³ with forks	3rd valve for GP/MP	Seat belt 75 mm
Attachments, backhoe buckets	Hydraulic valves (auxiliary)	Stabilizer street pads
Quick Coupler (Mechanical)	Standard stick	Stick, extendible
Counterweights	Extendible stick	Tool box, external
Bumper	Hydraulic lines	Transport locks
Base	Hammer lines to stick	Vandalism protection
Stackables	Quick disconnects	Visor cab
Cutting edge, bolt on	Lights	
Single piece	Number plate, rear	
Two piece	Roading	
Fenders, front, All Wheel Drive		

434E Backhoe Loader

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Caterpillar dealer for available options.

© 2007 Caterpillar -- All rights reserved

CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow" and the POWER EDGE trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

HEHB3127-2 (05/2007) hr

CATERPILLAR[®]