434E Mechanical
Backhoe Loader

Cat® 3054C DIT Diesel Engine
<table>
<thead>
<tr>
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<td>68.5 kW/93 hp</td>
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</tr>
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Cat® C4.4 Turbocharged After Cooled Engine
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Backhoe Digging Depth
<table>
<thead>
<tr>
<th></th>
<th>Standard Stick</th>
<th>Extendable Stick</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAE Maximum</td>
<td>4364 mm</td>
<td>5357 mm</td>
</tr>
<tr>
<td>Maximum</td>
<td>4919 mm</td>
<td>5863 mm</td>
</tr>
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</table>
Cat 434E – A highly productive Backhoe Loader developed with over 20 years experience 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.
Customer driven improvements are designed into the 434E Mechanical.

**Lower Operating Costs**
The 434E has an adjustment system that is simple to adjust ensuring easy maintenance of the Stabilizer and E-Stick a wear pads. This means less machine downtime and more convenience for the operator providing low operating costs.

**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. Releasing the brakes returns the transmission to two wheel drive. This effective system works well in hazardous, slippery or steep surfaces. Braking modes are controlled by an easily accessible All Wheel Drive Switch improving braking effectiveness and helps reduce tire wear.

**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.

**Large Fuel tank**
Responding to customer needs, a large 160 liter fuel tank, along with the efficient Cat engine and hydraulic system, ensures longer periods between fill ups and less inconvenience.

**Cat 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 immobilizer 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 electrodeposited (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.

**Excavator controls**
The 434E Mechanical is offered with a choice of excavator controls: Backhoe (SAE), Excavator (ISO) or Universal controls (X pattern). This ensures the 434E Mechanical will suit any type of 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 and agricultural applications such as farm maintenance. This machine can get to areas which are off limits to a lot of other type of machine increasing productivity and machine utilization.

Increased Loader Performance
The 434E has excellent lift height, which coupled with the large 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 434E is equipped with AWS system, enabling 2WS, Circle Steer, or Crab Steer to be selected providing an excellent turning circle and good maneuverability for working in confined working areas.
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 with modern styling meets the requirements of today’s demanding operator. The design incorporates curved glass for improved interior space and visibility. A wide cab provides a spacious environment for better performance when turning the seat from one mode of operation to the other. Cab comfort is enhanced with the first-class Cat air suspension seat, reducing fatigue.

An easy to open single rear piece window provides the operator with excellent ventilation and superb visibility. The rear wiper easily cleans a large area of the rear screen to ensure excellent visibility of the working area when working in wet or dusty conditions.

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 remote stabilizer controls, large adjustable vents throughout the cab, and clear gauges provide the operator with a comfortable operating environment designed to reduce operator fatigue and increase 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.

Operator Controls
Optimal cab ergonomics are vital to assist the operator in their quest for best productivity. Pressure compensated, well placed levers ensure low efforts and good controllability for maximum productivity.

HVAC System
The 434E benefits from an optional, powerful air conditioning system, which with good ventilation to the operator, ensures the operator stays cool in the highest of working temperatures. The ventilation system also provides plenty of demisting, defrosting and 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 whatever the ambient light conditions.

Cab Air Filter
The 434E has an easy access cab air filter, situated within the right hand rear fender. The cab air intake is positioned high up to minimize dust intake into the air filter.

Cab
The 434E is available in 2 cab options, providing the best choices to suit individual operator needs.

Cab Mounts
The cab is attached to the mainframe with resilient mounts, reducing vibration and sound providing the operator with an all around comfortable working environment.

Cat Suspension Seat
The major interface between the machine and the operator is optimal, and the Cat air suspension seat provides the operator with a comfortable working platform to ensure high levels of productivity with the minimum of fatigue.
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. Designed with performance in mind the 434E has high breakout forces enabling the operator to easily fill the bucket in toughest of ground conditions while also providing safe lifting of any palletized load. Available with either a General Purpose or Multi Purpose bucket, the 434E can be matched to your needs precisely. Work tool visibility is excellent with the narrow sloping hood and divergent loader arms allowing a clear line of sight to the bucket edges. A large torque tube provides torsional stiffness, needed when grading or picking up irregular shaped heavy objects with the loader bucket.

**Loader Control**
The loader Control Lever is ergonomically placed for operator comfort, and controls the multi-purpose bucket and auxiliary hydraulics when these options are fitted.

**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 automatically when lowering the arms. By the time the loader arms have been lowered to ground level, the bucket is in the correct position ready for the next load.
Backhoe Performance
The E-Series Backhoe improves performance and serviceability.

Excavator-style Backhoe
The Cat excavator style boom has more than just good looks. Whether close-up truck loading on a single road carriageway, or digging over obstacles such as walls, the excavator boom outperforms the rest. Combine the versatility with the powerful breakout forces, the controllability of the load sensing, flow-sharing hydraulic system and the 434E is capable of producing high levels of productivity with the minimum of operator effort. The boom is a narrow design, ensuring maximum visibility to the work tool.

Performance
Designed with performance in mind the 434E excavator has high stick and bucket breakout forces enabling the operator to easily dig in toughest of ground conditions.

Extendable Stick
The 434E is available with an extendable stick that increases dig depth and reach capability increasing the machines versatility and utilization. A sliding inner section design keeps the wear pads out of the dirt, extending adjustment and replacement intervals. When wear pad adjustment is necessary the adjustment bolts are easy to access taking minutes to adjust, without the need to disassemble the E-Stick. Auxiliary lines, for operating work tools, have been routed so that they are protected from damage when working in the narrowest of trenches.

Slider Frame and Swing Frame
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.

Cat Cushion Swing
The 434E is equipped with Cat Cushion Swing, which enables very fast trenching by damping the boom oscillation down when returning to trench with the backhoe.
Flow Sharing Valves
The 434E 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 grading with the backhoe.

Hardware
The 434E is equipped with a highly efficient variable displacement piston pump. Reliable high performance hydraulic hose is constructed from two strong steel braided layers and O-ring face seal fittings provides a robust system ensuring excellent durability and resistance to damage from pressure spikes and hydraulic pulsing.

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 job in hand. So whether you’re in full trenching mode, or delicately digging around services, you are in total control.
In applications such as loading and carrying, speed is important, and the 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 power losses enabling more power to be available for rimpull – providing better loading and roading performance increasing productivity.

Hydraulics
Load sensing, flow-sharing system matches power and flow supply to demand – where you need it, when you need it.
Work Tools
Enhance the versatility of your 434E, with a wide choice of tools on offer to suit your needs.

Backhoe Buckets
Caterpillar offers a huge variety of backhoe buckets to meet your requirements, including:
- Standard Duty Bucket. Used in easy to penetrate, low impact, moderately abrasive materials.
- 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
Cat backhoe buckets offer superior durability with the following features:
- Thick cutting edges.
- DRS (Diagonal Retention System) ensures easier replacement of pin on teeth and greater strength.
- Thick wear material on the side plates for better reinforcement and less wear.
- ID plates on all buckets showing part number, GET sizes and machine compatibility.

Sizes
Work tools are available in a full range of sizes, from a 228 mm Cribbing bucket for cable trenching, a range of Ditch Cleaning buckets, right up to large capacity 914 mm buckets for mass excavation.

Quick coupler – Loader and Backhoe
A hydraulic quick coupler is available for the loader, and a mechanical quick coupler option is available for the backhoe. 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:

Backhoe
- H65 Hydraulic Hammer
- 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.
Power Train

434E has a 40 km/h transmission as standard – less time on the road, more time on the job site.

Cat Engine
The 434E is available with either the 3054C turbocharged engine that meets Stage II emission regulation EU Directive 97/68/EC or the C4.4 turbocharged after cooled engine that meets Stage IIIA EU emission Directive 2004/26/EC. A choice of power rating enables the performance of the machine to be matched to customer needs. All engines are reliable 4 cylinder, 4 stroke direct injection diesel engines equipped with standard glow plug for optimum cold weather performance. This provides reliable starting performance down to –18° C. All engines feature a reliable gear driven water pump and a durable poly vee front end auxiliary drive belt that is automatically tensioned for longer life reducing operating costs.

Air Filter
A dry type axial air cleaner with an integral pre-cleaner and automatic integrated dust ejection system extends the life of the air filter life when working in dusty conditions reducing service time and costs.

Axles and Brakes
The heavy duty Cat 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 for good maneuverability in confined working areas.

40 km/h Power-Shuttle Transmission
The 434E comes equipped with 40 km/h power-shuttle transmission, improving roading speed and providing better spacing between gear ratios. It utilizes a constant mesh, synchronized, four speed system. The forward/reverse level on the steering column is placed for easy direction changes on the move, and the gear selection is from the floor mounted shift lever.

Diff-Lock
A manually operated differential lock in the rear axle is fitted as standard providing maximum traction in adverse ground conditions.

Optional Power Shift Transmission
The optional power shift transmission enables the correct gear to be selected more easily than a conventional power shuttle transmission reducing fatigue and increasing productivity. Hydraulic clutch pack modulation provides smooth take up providing the operator with a more comfortable drive over all types of terrain. The power shift transmission provides manual selection of four forward and three reverse gears. 5th gear is automatically selected to achieve the maximum road speed of 40 km/h. There is no floor mounted shift lever, so the operator has more floor space and improved access through the right hand door.
Serviceability
Lower operating costs mean a better return on your asset.

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 Stabilizers legs are also externally adjustable, reducing machine downtime 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 the 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 Cat S•O•S™. 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.

Customer Support
Low operating costs with your dealers 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 a Cat Reman facility, using genuine parts and skilled technicians. Reman parts are guaranteed for 1 year.
434E Mechanical Specifications

**Engine**

<table>
<thead>
<tr>
<th>Cat 3054C*</th>
<th>C4.4**</th>
</tr>
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<tbody>
<tr>
<td>Aspiration</td>
<td>Turbocharged</td>
</tr>
<tr>
<td>Rated power (standard)</td>
<td>2,200 rpm</td>
</tr>
<tr>
<td>Gross – SAE J1995</td>
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<tr>
<td>Net – 80/1269/EEC</td>
<td>65 kW/89 hp</td>
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</tr>
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- Net torque rise at 1,400 rpm
  - 70 kW/95 hp: 30%
  - 68.5 kW/93 hp: 33%
  - 74.5 kW/101 hp: 26%

- Peak torque rise at 1,400 rpm
  - 70 kW/95 hp: 395 Nm
  - 68.5 kW/93 hp: 395 Nm
  - 74.5 kW/101 hp: 408 Nm

- Bore: 105 mm
- Stroke: 127 mm
- Displacement: 4.4 liter

**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-skip, monobloc design for increased strength and long life.
- Poly vee front end and auxiliary drive belt that is automatically tensioned for long life reducing operating costs.
- 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 torque at low engine speeds for better machine performance.
- Dry type, axial seal air cleaner with automatic, integrated dust ejection providing more efficient preseparation.
- Direct electric 12 volt starting and charging system with 750 CCA group 31 maintenance free battery.

**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.
- 24" or 28" Equal Size Tires

**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 brake pedals can be interlocked for roading.
- Parking/secondary brakes are independent of the service brake system. Parking brake is mechanically applied through a hand lever located in the right side console. Meets ISO 3450:1996 requirements.

**All Wheel Steering**

Full hydrostatic steering controlled by a hand-metering unit. There are three operator selected modes to maximize machine maneuverability:
- Two wheel steer mode
- Circle-steer mode
- Crab steer

**Type**

| Power Steering | Hydrostatic
| Cylinder, one (1) double-acting (AWD) |
|----------------|-----------|
| 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
Transmission

The standard power-shuttle transmission provides four speed forward and reverse, 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 prevents 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 placed, 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 × 28 rear tires.

<table>
<thead>
<tr>
<th></th>
<th>Power Shuttle (standard)</th>
<th>Power Shift (optional)</th>
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</thead>
<tbody>
<tr>
<td>Forward</td>
<td>km/h</td>
<td>km/h</td>
</tr>
<tr>
<td>1st</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>2nd</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>3rd</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>4th</td>
<td>40</td>
<td>25</td>
</tr>
<tr>
<td>5th</td>
<td>—</td>
<td>38</td>
</tr>
<tr>
<td>Reverse</td>
<td></td>
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</tr>
<tr>
<td>1st</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>2nd</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>3rd</td>
<td>18</td>
<td>24</td>
</tr>
<tr>
<td>4th</td>
<td>40</td>
<td>—</td>
</tr>
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</table>

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 125 l/min at 2200 rpm

System pressure 227 bar

Operator Station

ROPS/FOPS is standard.

Weights

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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Weight (kg)</th>
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<tbody>
<tr>
<td>Operating weight (range)</td>
<td>8370 – 10 700</td>
</tr>
<tr>
<td>Standard machine weight</td>
<td>8460</td>
</tr>
<tr>
<td>ROPS canopy</td>
<td>–260</td>
</tr>
<tr>
<td>Autoshift</td>
<td>50</td>
</tr>
<tr>
<td>Air conditioning</td>
<td>48</td>
</tr>
<tr>
<td>All wheel drive</td>
<td>106</td>
</tr>
<tr>
<td>Multi purpose bucket 1.15 m³</td>
<td></td>
</tr>
<tr>
<td>With fold-over forks</td>
<td>950</td>
</tr>
<tr>
<td>Without fold-over forks</td>
<td>791</td>
</tr>
<tr>
<td>Extendable stick (excludes front counterweight)</td>
<td>230</td>
</tr>
</tbody>
</table>

Counterweights

<table>
<thead>
<tr>
<th>Type</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>115</td>
</tr>
<tr>
<td>Stackables – One</td>
<td>235</td>
</tr>
<tr>
<td>Stackables – Max</td>
<td>485</td>
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Minimum Counterweight Recommendations:

<table>
<thead>
<tr>
<th>Power train AWD</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General purpose</td>
<td>250</td>
</tr>
<tr>
<td>Multi purpose</td>
<td>Base</td>
</tr>
<tr>
<td>Multi purpose with fold-over forks</td>
<td>Base</td>
</tr>
</tbody>
</table>

Extendable stick

<table>
<thead>
<tr>
<th>Power train AWD</th>
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<td>Multi purpose</td>
<td>235</td>
</tr>
<tr>
<td>Multi purpose with fold-over forks</td>
<td>115</td>
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</table>

Cab Features

RH opening door with opening window ✓
LH opening door with opening window ✓
2 rear side fixed windows ✓
Standard air suspension seat ✓
8 working lights ✓
Floor mat ✓
LH storage console ✓
Tilt steering column ✓
Exterior rear view mirror ✓
Beacon socket (2) ✓
Radio ready headliner ✓
Sun visor ✓
Steering wheel knob ✓
Vandal guard ✓
Cab heater ✓
Cab air conditioning optional
Seat belt (50 mm) ✓

Canopy Features

Glazed front screen and wiper ✓
LH storage console ✓
8 working lights ✓
Standard air suspension seat ✓
Floor mat ✓
Tilt steering column ✓
Vandal guard ✓
Rear view mirror ✓
Individual display gauges ✓
Seat belt (50 mm) ✓
434E Mechanical Specifications
## Machine Dimensions

<table>
<thead>
<tr>
<th>1</th>
<th>Overall length (loader on ground) S-Stick</th>
<th>mm</th>
<th>6120</th>
<th>6099</th>
<th>6099</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Overall length (loader on ground) E-Stick</td>
<td>mm</td>
<td>6120</td>
<td>6099</td>
<td>6099</td>
</tr>
<tr>
<td>3</td>
<td>Overall transport length S-Stick</td>
<td>mm</td>
<td>6120</td>
<td>6105</td>
<td>6105</td>
</tr>
<tr>
<td>4</td>
<td>Overall transport length E-Stick</td>
<td>mm</td>
<td>6120</td>
<td>6105</td>
<td>6105</td>
</tr>
<tr>
<td>5</td>
<td>Overall width (standard)</td>
<td>mm</td>
<td>2368</td>
<td>2368</td>
<td>2368</td>
</tr>
<tr>
<td>6</td>
<td>Height to top of cab/canopy</td>
<td>mm</td>
<td>2801</td>
<td>2801</td>
<td>2801</td>
</tr>
<tr>
<td>7</td>
<td>Height to top of exhaust stack</td>
<td>mm</td>
<td>2733</td>
<td>2733</td>
<td>2733</td>
</tr>
<tr>
<td>8</td>
<td>Height to loader hinge pin (transport)</td>
<td>mm</td>
<td>402</td>
<td>402</td>
<td>402</td>
</tr>
<tr>
<td>9</td>
<td>Ground clearance (minimum)</td>
<td>mm</td>
<td>325</td>
<td>325</td>
<td>325</td>
</tr>
<tr>
<td>10</td>
<td>Rear axle centerline to front grill</td>
<td>mm</td>
<td>2743</td>
<td>2743</td>
<td>2743</td>
</tr>
<tr>
<td>11</td>
<td>Front wheel tread gauge</td>
<td>mm</td>
<td>1914</td>
<td>1914</td>
<td>1914</td>
</tr>
<tr>
<td>12</td>
<td>Rear wheel tread gauge</td>
<td>mm</td>
<td>1914</td>
<td>1914</td>
<td>1914</td>
</tr>
<tr>
<td>13</td>
<td>Wheel based (AWD)</td>
<td>mm</td>
<td>2200</td>
<td>2200</td>
<td>2200</td>
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</tbody>
</table>

### Dimensions and Performance – Loader Bucket

<table>
<thead>
<tr>
<th>1</th>
<th>Capacity (SAE rated)</th>
<th>m³</th>
<th>1.15</th>
<th>1.15</th>
<th>1.15</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Width</td>
<td>mm</td>
<td>2434</td>
<td>2434</td>
<td>2434</td>
</tr>
<tr>
<td>3</td>
<td>Lift capacity at maximum height</td>
<td>kg</td>
<td>3259</td>
<td>3250</td>
<td>3043</td>
</tr>
<tr>
<td>4</td>
<td>Breakout force</td>
<td>kN</td>
<td>56</td>
<td>56</td>
<td>55</td>
</tr>
<tr>
<td>5</td>
<td>Tipping load at bucket load point</td>
<td>kg</td>
<td>5974</td>
<td>5780</td>
<td>5596</td>
</tr>
<tr>
<td>6</td>
<td>Maximum hinge pin height</td>
<td>mm</td>
<td>3442</td>
<td>3442</td>
<td>3442</td>
</tr>
<tr>
<td>7</td>
<td>Dump angle at full height</td>
<td>°</td>
<td>45</td>
<td>45</td>
<td>45</td>
</tr>
<tr>
<td>8</td>
<td>Dump height at maximum angle</td>
<td>mm</td>
<td>2666</td>
<td>2681</td>
<td>2681</td>
</tr>
<tr>
<td>9</td>
<td>Dump reach at maximum angle</td>
<td>mm</td>
<td>903</td>
<td>889</td>
<td>889</td>
</tr>
<tr>
<td>10</td>
<td>Maximum bucket rollback at ground level</td>
<td>°</td>
<td>41</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td>11</td>
<td>Digging depth</td>
<td>mm</td>
<td>229</td>
<td>229</td>
<td>229</td>
</tr>
<tr>
<td>12</td>
<td>Maximum grading angle</td>
<td>°</td>
<td>107</td>
<td>107</td>
<td>107</td>
</tr>
<tr>
<td>13</td>
<td>Width of dozer cutting edge</td>
<td>mm</td>
<td>2434</td>
<td>2434</td>
<td>2434</td>
</tr>
<tr>
<td>14</td>
<td>Grill to bucket cutting edge, carry position</td>
<td>mm</td>
<td>1575</td>
<td>1560</td>
<td>1560</td>
</tr>
<tr>
<td>15</td>
<td>Maximum operating height</td>
<td>mm</td>
<td>4339</td>
<td>4409</td>
<td>4872</td>
</tr>
<tr>
<td>16</td>
<td>Jaw open maximum</td>
<td>mm</td>
<td>864</td>
<td>864</td>
<td>864</td>
</tr>
<tr>
<td>17</td>
<td>Bucket jaw clamping force</td>
<td>kN</td>
<td>56</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>18</td>
<td>Weight (not including teeth)</td>
<td>kg</td>
<td>438</td>
<td>744</td>
<td>948</td>
</tr>
</tbody>
</table>

### Dimensions and Performance – Backhoe

| 14 | Digging depth, SAE maximum | mm | 4364 | 4368 | 5357 |
| 15 | Digging depth, maximum | mm | 4919 | 4920 | 5863 |
| 16 | Digging depth, 610 mm flat bottom, SAE maximum | mm | 4321 | 4325 | 5319 |
| 17 | Digging depth, 610 mm flat bottom, maximum | mm | 4890 | 4893 | 5839 |
| 18 | Reach from swing pivot at ground line | mm | 5660 | 5666 | 6590 |
| 19 | Loading height | mm | 3759 | 3854 | 4398 |
| 20 | Loading reach | mm | 1769 | 1688 | 2586 |
| 21 | Swing arc | ° | 180 | 180 | 180 |
| 22 | Bucket rotation | ° | 205 | 205 | 205 |
| 23 | Stabilizer width | mm | 2368 | 2368 | 2368 |
| 24 | Bucket dig force | kN | 63 | 63 | 63 |
| 25 | Stick dig force | kN | 35 | 36 | 26 |
| 26 | Total side shift travel | mm | 1258 | 1258 | 1258 |
Standard Equipment
Standard equipment may vary. Consult your Cat dealer for details.

Air cleaner, dry type, axial seal with pre-cleaner and filter condition indicator
All Wheel Drive
All Wheel Steer
Alternator, 120-amp, 12 volt
Antifreeze (to –37° C)
Audible system fault alarm
Backhoe, 4364 mm dig depth, side-shift, excavator-style backhoe
Battery, maintenance free, 750 CCA
Boom, transport lock
Brace, lift cylinder
Brakes, Kevlar disc, oil immersed
Cat 3054C engine* (68.5 kW) or Cat C4.4 engine** (70 kW)
Coat hook
Electro-hydraulic slide frame lock
Engine enclosure
Fan, cooling and fan guard
Fast reversing shuttle, all gears
Flashlight hazard, signal lights
Floor mat, rubber
Front axle, pendulum mount
Front grill with bumpers
Front headlights
Gauges: Coolant temperature, fuel level, tachometer, hour meter
Ground line fuel fill with 187 liters capacity
Grouser style stabilizer shoes
High ambient cooler package
Hydraulic oil cooler
Indicators: Air cleaner service, brake on, engine coolant, hydraulic oil level sight gauge
Instrument panel lights
Intermittent front and rear wash/wipe
Key start/stop with auxiliary position
Lifting eye, backhoe
(Non EU countries only)
Lights, working (4 front, 4 rear)
Load sensing, variable flow system with axial piston pump
Mirrors, external (2)
Power receptacle, 12 V (2)
Power steering, hydrostatic
ROPS cab with heater, defroster, pressurizer and cab recirculating fan
Seat belt, retractor (50 mm)
Seat, air suspension with fabric seat cover
Self canceling directional indicators
Spin-on fuel, engine, hydraulic and transmission oil filters
Starting system, thermal aid
Stop and tail lights (2)
Swing transport lock
Tires (front, 2 rear)
Torque converter
Transmission, four-speed synchronmesh
Transmission neutralizer switch
Warning horn, front electric
Working lights
Water separator

Optional Equipment
Optional equipment may vary. Consult your Cat dealer for details.

Air conditioning
Alarm, back up
Attachments, front loader
General purpose bucket 1.15 m³
Multi purpose bucket 1.15 m³ or 1.5 m³ with forks
Attachments, backhoe buckets
Quick Coupler (mechanical)
Cat 3054C DIT* (74.5 kW) engine
Cat C4.4** (74.5 kW) engine
Counterweights
Bumper
Base
Stackables
Cutting edge, bolt on
Single piece
Two piece
Fenders, front
Guards
AWD driveshaft
Teeth (GP/MP)
Rear lights, roading
Hydraulic valves, loader
3rd valve for GP/MP
Hydraulic valves (auxiliary)
Standard stick
Extendable stick
Hydraulic lines
Hammer lines to stick
Quick disconnects
Lights
Number plate, rear
Roading
Mirror, exterior rearview, large
Object handling installation, including lifting eye, boom and stick locks, audible and visual warning system
Operators station
Canopy
Power shift transmission
Powered sideshift
Ride control
Rotating beacon
Stabilizer street pads
Stick, extendable
Tilt steering wheel
Tool box, external
Transport lock
Vandalism protection
Visor cab

* Standard for less regulated countries, meets Stage II EU Emission Directive 97/68/EC.
** Standard for regulated countries, meets Stage IIIA EU Emission Directive 2004/26/EC.
**Backhoe Loader E-Series**

Complete product range.

### Backhoe Loader E-Series Specifications

#### 422E

<table>
<thead>
<tr>
<th>Engine Power (Gross)</th>
<th>56.6 kW/77 hp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control type</td>
<td>Mechanical</td>
</tr>
<tr>
<td>Steer mode</td>
<td>Two Wheel Steer</td>
</tr>
<tr>
<td>SAE maximum dig depth (standard stick)</td>
<td>4.2 m</td>
</tr>
<tr>
<td>Loader bucket capacity</td>
<td>1.0 m³</td>
</tr>
<tr>
<td>Loader breakout force</td>
<td>33 kN</td>
</tr>
<tr>
<td>Stick tearout force</td>
<td>35 kN</td>
</tr>
<tr>
<td>Bucket tearout force</td>
<td>63 kN</td>
</tr>
<tr>
<td>Hydraulic oil flow</td>
<td>125 l/min</td>
</tr>
</tbody>
</table>

#### 428E, 432E, 442E

<table>
<thead>
<tr>
<th>Engine Power (Gross)</th>
<th>68.5 kW/93 hp</th>
<th>68.5 kW/93 hp</th>
<th>74.5 kW/101 hp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control type</td>
<td>Mechanical</td>
<td>Pilot</td>
<td>Pilot</td>
</tr>
<tr>
<td>Steer mode</td>
<td>Two Wheel Steer</td>
<td>Two Wheel Steer</td>
<td>Two Wheel Steer</td>
</tr>
<tr>
<td>SAE maximum dig depth (standard stick)</td>
<td>4.2 m</td>
<td>4.4 m</td>
<td>4.6 m</td>
</tr>
<tr>
<td>Loader bucket capacity</td>
<td>1.0 m³</td>
<td>1.0 m³</td>
<td>1.0 m³</td>
</tr>
<tr>
<td>Loader breakout force</td>
<td>55 kN</td>
<td>55 kN</td>
<td>55 kN</td>
</tr>
<tr>
<td>Stick tearout force</td>
<td>35 kN</td>
<td>41 kN</td>
<td>46 kN</td>
</tr>
<tr>
<td>Bucket tearout force</td>
<td>63 kN</td>
<td>63 kN</td>
<td>63 kN</td>
</tr>
<tr>
<td>Hydraulic oil flow</td>
<td>125 l/min</td>
<td>156 l/min</td>
<td>156 l/min</td>
</tr>
</tbody>
</table>

#### 434E Mechanical, 434E Pilot, 444E

<table>
<thead>
<tr>
<th>Engine Power (Gross)</th>
<th>68.5 kW/93 hp</th>
<th>74.5 kW/101 hp</th>
<th>74.5 kW/101 hp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control type</td>
<td>Mechanical</td>
<td>Pilot</td>
<td>Pilot</td>
</tr>
<tr>
<td>Steer mode</td>
<td>Equal Size Wheel</td>
<td>Equal Size Wheel</td>
<td>Equal Size Wheel</td>
</tr>
<tr>
<td>SAE maximum dig depth (standard stick)</td>
<td>4.3 m</td>
<td>4.3 m</td>
<td>4.6 m</td>
</tr>
<tr>
<td>Loader bucket capacity</td>
<td>1.15 m³</td>
<td>1.15 m³</td>
<td>1.3 m³</td>
</tr>
<tr>
<td>Loader breakout force</td>
<td>56 kN</td>
<td>56 kN</td>
<td>55 kN</td>
</tr>
<tr>
<td>Stick tearout force</td>
<td>35 kN</td>
<td>41 kN</td>
<td>41 kN</td>
</tr>
<tr>
<td>Bucket tearout force</td>
<td>63 kN</td>
<td>63 kN</td>
<td>63 kN</td>
</tr>
<tr>
<td>Hydraulic oil flow</td>
<td>125 l/min</td>
<td>156 l/min</td>
<td>156 l/min</td>
</tr>
</tbody>
</table>
434E Backhoe Loader