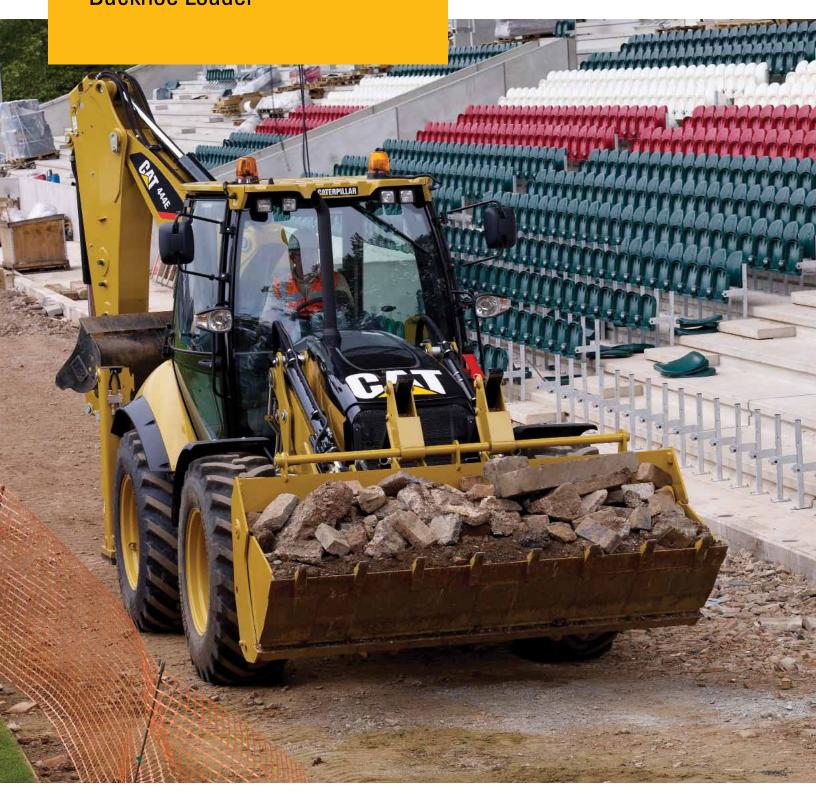
444EBackhoe Loader

CATERPILLAR®



| (standard) |
|----------------|
| 74.5 kW/101 hp |
| 71 kW/97 hp |
| (optional) |
| 74.5 kW/101 hp |
| 71 kW/97 hp |
| 8810-10700 kg |
| |

| Backhoe Digging Depth | |
|-----------------------|---------|
| Extendable Stick | |
| SAE Maximum | 5771 mm |
| Maximum | 6313 mm |

444E Features

Versatility

Being easily adaptable to work with a variety of Cat Work Tools ensures high machine utilization on any working site.

Performance

Class leading all round performance and ease of operation ensures high levels of efficiency and maximum productivity.

Comfortable Operator Station

Spacious and quiet, this world-class environment enables the operator to productively focus on the task at hand with the minimum of effort.

Service

Caterpillar's principles of design and manufacturing techniques provide maximum uptime with outstanding durability and service life.

Value

With excellent performance, reliability, durability, quality and residual values the Cat Backhoe Loader provides the owner with a prudent investment decision.



Contents

| realures |
|------------------------------------|
| Pilot Operated Joystick Controls 4 |
| Equal Size Tires4 |
| Work Station5 |
| Operator Comfort6 |
| Loader Versatility7 |
| Backhoe Performance8 |
| Hydraulics9 |
| Work Tools |
| Power Train |
| Serviceability12 |
| Customer Support12 |
| Specifications13 |
| Standard and Optional Equipment18 |
| |

Caterpillar's 444E – A highly productive Backhoe Loader developed with over 20 years experience in the Backhoe Loader industry, the 444E is designed to exceed customer expectations. More performance, versatility and comfort than ever before gives the 444E 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.

Features

Customer driven improvements are designed into the 444E.







Lower Operating Costs

The 444E 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 444E 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 444E has been designed with improved weight distribution. The new 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 444E has an in-cab backhoe control pattern changer as standard, allowing operators to choose between either ISO, or SAE control patterns. Conveniently located within reach of the operator the operator can easily select a preferred operating control pattern.operation.

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

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 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 444E 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 444E will stay looking good for longer, ensuring optimum resale value.

Pilot Operated Joystick Controls

As standard, to reduce fatigue, improved visibility and increase versatility.

Joystick Controls

Excavator style joystick controls provide smooth modulation and are ergonomically designed for low effort control maximizing operator comfort. The location of the controls naturally positions the operator in to the most comfortable of operating positions. Proportional controls in both the loader and the excavator hoe joysticks give precise control of loader and excavator worktools and extendable stick.

Excavator Control Pattern Changer

The 444E has an in-cab backhoe control pattern changer as standard, allowing operators to choose between either ISO, or SAE control patterns. Conveniently located within reach of the operator the operator can easily select a preferred operating control pattern.

Stabilizer Controls

Pilot operated, conveniently located stabilizer 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, with two location positions, 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 centrally mounted control console impeding vision, the operator has an unobstructed view to the working area.





Equal Size Tires

Characteristics which offer more jobsite opportunities for the operator

Improved Flotation

The 444E 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 utilisation.

Increased Loader Performance

The 444E has excellent lift height, which coupled with the large bucket and powerful breakout forces, enable the 444E to perform high productivity loading duties, such as hopper charging, bulk material transfer, grading and loading.

Tire Options

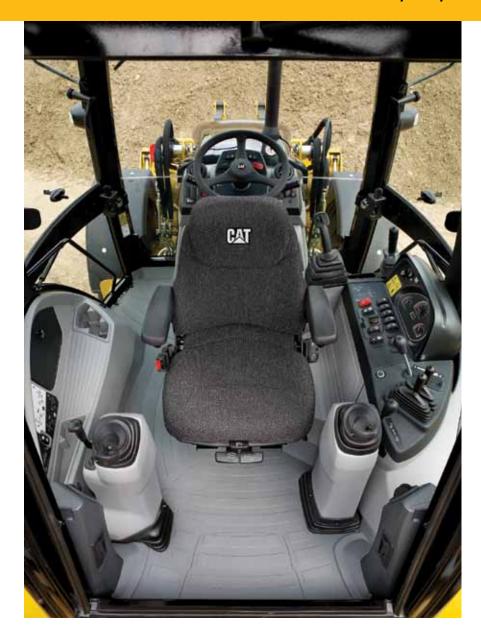
The 444E is supplied on 28" tires, in bias or radial ply variants. This allows the correct choice of tire to suit any application or budget.

Standard All Wheel Steer (AWS)

The 444E is equipped with AWS sytem, enabling 2WS, Circle Steer, or Crab Steer to be selected providing an excellent turning circle and good manoeuvrability for working in confined working areas.

Work Station

The E-series cab. Comfort, visibility, Style - Designed In!



The 444E 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.



Operator Comfort

The working environment has been designed with the operator in mind.

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 444E has features, both standard and optional, that reduce vibration.

HVAC System

The 444E 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 444E 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 444E 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 444E 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 round 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 444E Loader now has even greater performance.



Powerful Loader Performance

The 444E Parallel Lift Loader offers self levelling as standard, ensuring faster loading cycles. Designed with performance in mind the 444E has high breakout forces enabling the operator to easily fill the bucket in toughest of ground conditions whilst also providing safe lifting of any palletized load. Available with either a 1.3 m3 General Purpose or Multi Purpose bucket, the 444E 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.

Joystick Control

The loader joystick 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 Dia

Your 444E 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.

Hydraulic Quick Coupler Option

The 444E is available with an optional loader quick coupler, allowing greater loader versatility with a wide range of Caterpillar work tools.



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, flowsharing hydraulic system and the 444E 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 444E excavator has high stick and bucket breakout forces enabling the operator to easily dig in toughest of ground conditions.

Extendable Stick

The 444E has an extendable stick that increases dig depth and reach capability increasing the machines versatility and utilisation. 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. Auxliary lines, for operating worktools, have been routed so that they are protected from damage when working in the narrowest of trenches.

Slider Frame and Swing Frame

The 444E 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

The 444E is equipped with Cat Cushion Swing, which enables very fast trenching by damping the boom oscillation down when returning to trench with the hoe.

Increased Depth

The 444E has a dig depth of 6.3m, further increasing the productivity and versatility of this machine

Increased Performance

The geometry of the boom and stick have been designed to provide high breakout forces which equates to excellent digging performance making the 444E one of the best excavating backhoe available.

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 444E 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.

Flow Sharing Valves

The 444E 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 444E 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.

Work Tools

Enhance the versatility of your 444E, 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 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 9"/228mm Cribbing bucket for cable trenching, a range of Ditch Cleaning buckets, 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

Loader

• H65 Hydraulic Hammer

Angle Broom

Auge

- Pickup Sweeper
- Vibratory Plate Compactor
- Cold Planer

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

Power Train

444E has a 40 kph transmission as standard - less time on the road, more time on the job site.



Auto-Shift Transmission

Work faster with the 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.

Large Torque Converter

The 444E has a larger torque converter, which equates to more rimpull, improving loading and roading performance considerably.

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.

Diff-Lock

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

Cat Engine

The 444E 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. 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.

Axles and Brake

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.

Serviceability

Lower operating costs mean a better return on your asset.

Reduced Maintenance

The 444E 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 444E.

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 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 Caterpillar S•O•SSM. 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 Cat's Reman facility, using genuine parts and skilled technicians. Reman parts are guaranteed for 1 year.

| Engine | Cat 3054* | C4.4** | | |
|------------------------------|----------------|----------------|--|--|
| Aspiration | Turbocharged | Turbocharged | | |
| Rated Power (standard) | 2200 rpm | 2200rpm | | |
| Gross – SAE J1995 | 74.5 kW/101 hp | 74.5 kW/101 hp | | |
| Net – ISO 9249 | 71 kW/97 hp | 71 kW/97 hp | | |
| Net - 80/1269/EEC | 71 kW/97 hp | 71 kW/97 hp | | |
| Net Torque Rise at 140 | 0 rpm 26% | 23% | | |
| Peak Torque Rise at 1400 rpm | | | | |
| 74.5 kw/101 hp | 408 Nm | 400Nm | | |
| Bore | 105 mm | 105 mm | | |
| Stroke | 127 mm | 127 mm | | |
| Displacement | 4.4 liter | 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 3.000m
- * Stage II EU Emission Directive 97/68/EC
- ** Stage IIIA EU Emission Directive 2004/26/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
- 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, 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.
- 28' Equal Size Tires.

All Wheel Steering

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

- · Two wheel steer mode
- · Circle-steer mode
- · Crab Steer

| Type | | | |
|---------------------------------------|-------|-------------|--|
| Power Steering | | Hydrostatic | |
| Cylinder, one (1) double-acting (AWD) | | | |
| | Front | Rear | |
| Bore | 85 mm | 85 mm | |
| Stroke | 48 mm | 63 mm | |
| Rod diameter | 42 mm | 42 mm | |
| Turning Circle | | | |
| Two Wheel Steer | | 19 370 mm | |
| Circle steer | | 12 940 mm | |

Brakes

Fully enclosed, hydraulic, multiple discs.

- 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.

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.

| | kg |
|--|---------|
| Operating weight (range) 8810 | - 10700 |
| Standard machine weight | 8898 |
| ROPS canopy | -260 |
| Autoshift | 50 |
| Air conditioning | 48 |
| All Weel 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:

| Power train AWD | |
|--------------------|------|
| General Purpose | 250 |
| Multi Purpose | Base |
| Multi purpose with | |
| fold-over forks | Base |
| Extendible Stick | |
| Power trin AWD | |
| General Purpose | 485 |
| Multi Purpose | 235 |
| Multi Purpose with | |
| fold-over forks | 115 |
| | |

Cab Features

| | Standard | Deluxe |
|-------------------------------------|---------------------------|---------------------|
| RH opening door with opening window | V | V |
| LH opening door with opening window | V | $\sqrt{}$ |
| 2 rear side fixed windows | $\sqrt{}$ | |
| 2 rear side opeing windows | | $\sqrt{}$ |
| Standard air suspension seat | $\sqrt{}$ | |
| Deluxe air suspension seat | | $\sqrt{}$ |
| 8 working lights | $\sqrt{}$ | $\sqrt{}$ |
| Floor mat | $\sqrt{}$ | $\sqrt{}$ |
| LH storage console | $\sqrt{}$ | $\sqrt{}$ |
| Tilt steering column | $\sqrt{}$ | $\sqrt{}$ |
| Exterior rear view mirror | $\sqrt{}$ | $\sqrt{}$ |
| Beacon socket (2) | $\sqrt{}$ | $\sqrt{}$ |
| Internal power socket | $\sqrt{}$ | $\sqrt{}$ |
| Radio ready headliner | $\sqrt{}$ | $\sqrt{}$ |
| Instrument cluster display gauge | $\sqrt{}$ | $\sqrt{}$ |
| Sun visor | $\sqrt{}$ | $\sqrt{}$ |
| Cat Contravision | | $\sqrt{}$ |
| Steering wheel knob | $\sqrt{}$ | $\sqrt{}$ |
| Vandal guard | $\sqrt{}$ | $\sqrt{}$ |
| Cab heater | $\sqrt{}$ | $\sqrt{}$ |
| Cab air conditioning* | opti | onal |
| Auto-Up Stabilizers | opti | onal |
| Seat belt (50 mm) | $\overline{\hspace{1cm}}$ | $\overline{\qquad}$ |

Service Refill Capacities

| - | |
|-------------------------|--------|
| | Liters |
| Cooling System | 25.0 |
| Fuel tank | 160.0 |
| Engine with oil filter | 7.6 |
| Transmission | |
| AWD | 19.0 |
| 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 | 14.0 |
| Wheel End/Final Drive | |
| (volume per side) | 0.7 |
| Hydraulic System | 79/99 |
| Hydraulic Tank | 40 |
| | |

Transmission

The standard Auto-shift transmission provides five speeds forward and three 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 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 placed, hand operated lever provides instant direction changes between forward and reverse through power hydraulic clutches.

Torque convertor

Single stage, 2.4 stall ratio

Travel Speeds

Travel speeds of All Wheel Drive backhoe loader at full throttle, when equipped with 16.9 x 28 rear tires.

| | Autoshift |
|---------|-----------|
| Forward | kph |
| 1st | 5 |
| 2nd | 9 |
| 3rd | 19 |
| 4th | 27 |
| 5th | 40 |
| Reverse | |
| 1st | 5 |
| 2nd | 12 |
| 3rd | 26 |
| | |

Hydraulic System

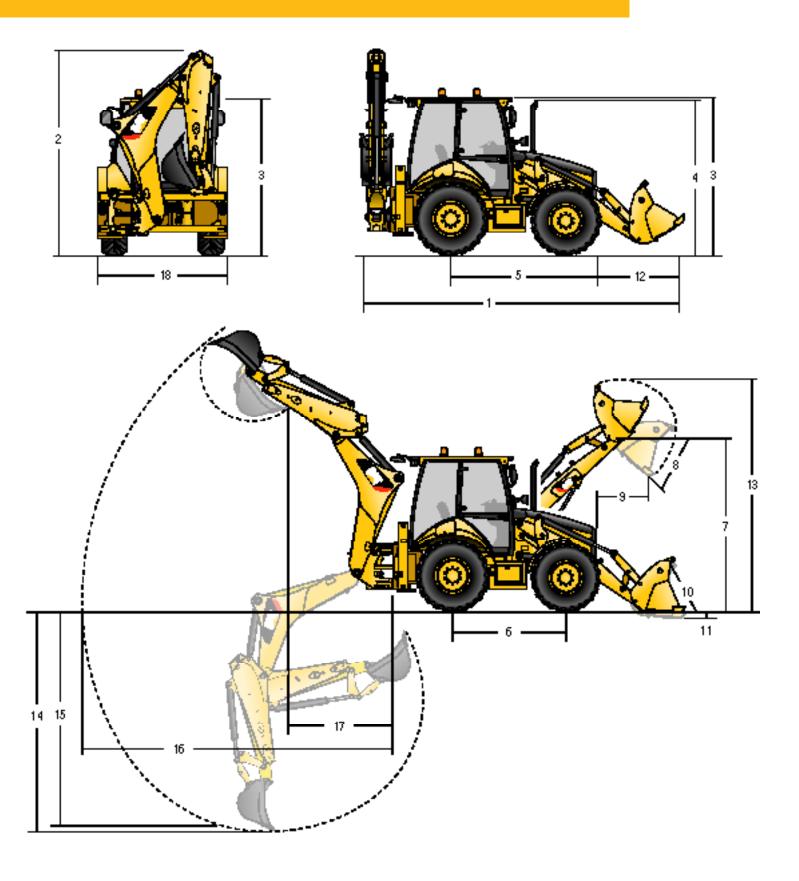
Load-sensing, closed-center system Variable-flow, closed-center, loadsensing system provides full hydraulic force to cutting edges at all engine speeds. Provides low fuel consumption and low effort controls.

| Type | |
|-------------------|---------------------|
| Closed-center | |
| Pump type | |
| Variable-flow, az | xial-piston |
| Pump capacity | 156 lpm at 2200 rpm |
| System pressure | 249 bar |

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.



| Machine Di | mensions | | | | |
|-------------------|--------------------------------|----|---------------|---------------|--------------------------|
| | | Ge | neral Purpose | Multi Purpose | Multi Purpose with Forks |
| 1 Overall len | gth (loader on ground) S-Stick | mm | 6085 | 6115 | 6115 |
| Overall len | gth (loader on ground) E-Stick | mm | 6085 | 6115 | 6115 |
| Overall trai | nsport length S-Stick | mm | 6099 | 6119 | 6119 |
| Overall trai | nsport length E-Stick | mm | 6099 | 6119 | 6119 |
| 2 Overall trai | nsport height S-Stick | mm | 3871 | 3871 | 3871 |
| Overall trai | nsport height E-Stick | mm | 3896 | 3896 | 3896 |
| Overall Wi | dth (Standard) | mm | 2368 | 2368 | 2368 |
| 3 Height to to | op of cab/canopy | mm | 2851 | 2851 | 2851 |
| 4 Height to to | op of exhaust stack | mm | 2783 | 2783 | 2783 |
| Height to lo | oader hinge pin (transport) | mm | 397 | 393 | 393 |
| Ground cle | earance (minimum) | mm | 375 | 375 | 375 |
| 5 Rear axle c | enterline to front grill | mm | 2743 | 2743 | 2743 |
| Front whee | el tread gauge | mm | 1914 | 1914 | 1914 |
| Rear wheel | tread gauge | mm | 1914 | 1914 | 1914 |
| 6 Wheel base | ed (AWD) | mm | 2200 | 2200 | 2200 |

| | Ge | eneral Purpose | Multi Purpose | Multi Purpose with Forks |
|--|----|----------------|---------------|--------------------------|
| Capacity (SAE rated) | m3 | 1.3 | 1.3 | 1.3 |
| Width | mm | 2434 | 2434 | 2434 |
| Lift capacity at maximum height | kg | 3997 | 3709 | 3533 |
| Breakout force | kN | 64 | 62 | 60 |
| Tipping load at bucket load point | kg | 6587 | 6535 | 6350 |
| Maximum hinge pin height | mm | 3496 | 3496 | 3496 |
| Dump angle at full height | | 45° | 45° | 450 |
| Dump height at maximum angle | mm | 2720 | 2699 | 2699 |
| Dump reach at maximum angle | mm | 848 | 869 | 869 |
| Maximum bucket rollback at ground level | | 400 | 400 | 40° |
| 1 Digging depth | mm | 175 | 175 | 175 |
| Maximum grading angle | mm | 108^{0} | 1070 | 107° |
| Width of dozer cutting edge | mm | - | 2434 | 2434 |
| 2 Grill to bucket cutting edge, carry position | mm | 1499 | 1519 | 1519 |
| Maximum operating height | mm | 4528 | 4520 | 4943 |
| Jaw open maximum | mm | - | 913 | 913 |
| Bucket jaw clamping force | kN | - | 44 | 44 |
| Weight (not including teeth) | kg | 462 | 809 | 809 |

Dimensions and Performance - Backhoe

| | | Extendable Stick | |
|--|----|------------------|---------------|
| | | Retracted | Extended |
| 14 Digging depth, SAE maximum | mm | 4747 | 5771 |
| Digging depth, maximum | mm | 5333 | 6313 |
| 15 Digging depth, 610 mm flat bottom, SAE maximum | mm | 4717 | 5735 |
| Digging depth, 610 mm flat bottom, maximum | mm | 5296 | 6289 |
| 16 Reach from swing pivot at ground line | mm | 6140 | 7090 |
| Loading height | mm | 4166 | 4709 |
| 17 Loading reach | mm | 1809 | 2708 |
| Swing arc | | 180° | 180° |
| Bucket rotation | | 205° | 205° |
| 18 Stabilizer width | mm | 2368 | 2368 |
| Bucket dig force | kN | 63 | 63 |
| Stick dig force | kN | 46 | 34 |
| Total side shift travel | mm | 1258 | 1258 |

Standard Equipment

Standard equipment may vary. Consult your Cat dealer for details.

Power receptacle, 12 V (2)

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, 4747 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* (74.5 kW) or Cat C4.4 engine** (74.5 kW) Coat hook Electro-hydraulic slide frame lock Engine enclosure Fan, cooling and fan guard Fast reversing shuttle, all gears Flashing 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 160 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) Pilot stabilizer controls

Power steering, hydrostatic ROPS cab with heater, defroster, pressurizer and cab recirculating fan Seat belt, retractable (50 mm) Seat, air suspension with fabric or vinyl seat cover Self canceling directional indicator Spin-on fuel, engine, hydraulic and transmission oil filters Starting system, thermal aid Stick Extendable Stop and tail lights (2) Swing transport lock Tilt Steering Column Tires (2 front, 2 rear) Torque convertor Throttles, hand and foot Transmission, Auto-Shift Transmission neutralizer switch Warning horn, front electric 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 1.3 m3
Multi purpose bucket 1.3 m3 or
1.3 m3 with forks
Attachments, backhoe buckets
Quick Coupler (Mechanical)
Counterweights
Bumper
Base
Stackables
Cutting edge, bolt on
Single piece
Two piece

Fenders, front, All Wheel Drive Guards
AWD driveshaft
Teeth (GP/MP)
Rear lights, roading
Hydraulic valves, loader
3rd valve for GP/MP
Hydraulic valves (auxiliary)
Extendable stick
Hydraulic lines
Hammer lines to stick
Quick disconnects
Lights
Number plate, rear
Roading Mirror, exterior rearview, large
Object Handling Installation including
lift eye, boom and stick locks and audiovisual warning system
Powered Side Shift
Ride control
Rotating beacon
Stabilizer street pads
Tool box, external
Transport locks

 $^{{\}rm * \ Standard \ for \ less \ regulated \ countries, \ meets \ stage \ II \ EU \ Emission \ Directive \ 97/68/EC.}$

^{**} Standard for regulated countries, meets stage IIIA EU Emission Directive 2004/26/EC

Backhoe Loader E-Series

Complete product range.

| | 422E |
|--|-----------------|
| Engine Power (Gross) | 56.6 kW 77 HP |
| Control Type | Mechanical |
| Steer Mode | Two Wheel Steer |
| SAE Maximum dig depth (standard stick) | 4.2 m |
| Loader Bucket Capacity | 1.0 m3 |
| Loader Breakout Force | 33 kN |
| Stick Tearout force | 35 kN |
| Bucket Tearout force | 63 kN |
| Hydraulic oil flow | 125 l/min |



| | 428E | 432E | 442E |
|--|-----------------|-----------------|-----------------|
| Engine Power (Gross) | 68.5 kW 93 HP | 68.5 kW 93 HP | 74.5kW 101 HP |
| Control Type | Mechanical | Pilot | Pilot |
| Steer Mode | Two Wheel Steer | Two Wheel Steer | Two Wheel Steer |
| SAE Maximum dig depth (standard stick) | 4.2 m | 4.4 m | 4.6 m |
| Loader Bucket Capacity | 1.0 m3 | 1.0 m3 | 1.0 m3 |
| Loader Breakout Force | 55 kN | 55 kN | 55 kN |
| Stick Tearout force | 35 kN | 41 kN | 46 kN |
| Bucket Tearout force | 63 kN | 63 kN | 63 kN |
| Hydraulic oil flow | 125 l/min | 156 l/min | 156 l/min |



| | 434E Mechanical | 434E Pilot | 444E |
|--|------------------|------------------|------------------|
| Engine Power (Gross) | 68.5 kW 93 HP | 74.5 kW 101 HP | 74.5 kW 101 HP |
| Control Type | Mechanical | Pilot | Pilot |
| Steer Mode | Equal Size Wheel | Equal Size Wheel | Equal Size Wheel |
| SAE Maximum dig depth (standard stick) | 4.3 m | 4.3 m | 4.6 m |
| Loader Bucket Capacity | 1.15 m3 | 1.15 m3 | 1.3 m3 |
| Loader Breakout Force | 56 kN | 56 kN | 55 kN |
| Stick Tearout force | 35 kN | 41 kN | 41 kN |
| Bucket Tearout force | 63 kN | 63 kN | 63 kN |
| Hydraulic oil flow | 125 l/min | 156 l/min | 156 l/min |



444E Backhoe Loader

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

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

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