

# 442E

Backhoe Loader

**CATERPILLAR®**



#### **Cat® 3054C DIT Diesel Engine**

Gross power (SAE J1995) at 2200 rpm	74.5 kW/101 hp
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Net Power (ISO 9249) at 2200 rpm	71 kW/97 hp
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#### **Cat® C4 Turbocharged Aftercooled Engine**

Gross power (SAE J1995) at 2200 rpm	74.5 kW/101 hp
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Net Power (ISO 9249) at 2200 rpm	71 kW/97 hp
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Operating Weight	7940-10 700kg
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#### **Backhoe Digging Depth**

Extendable Stick	
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SAE Maximum	5663 mm
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Maximum	6294 mm
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## 442E 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

Features .....	3
Work Station .....	4
Pilot Operated Joystick Controls .....	5
Operator Comfort .....	6
Loader .....	7
Backhoe Performance .....	8
Hydraulics .....	9
Work Tools .....	10
Power Train .....	11
Serviceability .....	12
Customer Support .....	12
Specifications .....	13
Standard and Optional Equipment .....	18

**Caterpillar's 442E – A highly productive Backhoe Loader developed with over 20 years experience in the Backhoe Loader industry, the 442E is designed to exceed customer expectations. More performance, versatility and comfort than ever before gives the 442E 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 442E.



## **Lower Operating Costs**

The 442E has an adjustment system that is simple to adjust ensuring easy maintenance of the Stabilizer and E-Stick 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 442E 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 442E has been designed with a long wheel base to ensure optimum balance and handling, particularly when roading. This is achieved with no loss in turning circle.

## **Pattern Changer**

The 442E 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.

## **160 Liter 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.

## **Increased Rimpull**

The 442E is equipped with a larger torque converter. This increases rimpull, which equates to improved loading characteristics, which in turn offers more productivity.

## **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 442E 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 442E will stay looking good for longer, ensuring optimum resale value.





# Work Station

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

The 442E 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.

# Pilot Operated Joystick Controls

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



## **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 442E 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.



# 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 442E has features, both standard and optional, that reduce vibration.

## **HVAC System**

The 442E 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 442E 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 442E 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 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

## **Cab Options**

The 442E is available in 2 cab options, providing the best choices to suit individual operator needs.

## **Cat Air 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

The 442E Parallel Lift Loader now has even greater performance.



## **Powerful Loader Performance**

The 442E Parallel Lift Loader offers self levelling as standard, ensuring faster loading cycles. Designed with performance in mind the 442E 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 General Purpose or Multi Purpose bucket, the 442E 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.

## **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 442E 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 442E has greater dig depth, higher forces and an improved design for increased performance.



## 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 442E 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.

## Extendable Stick

The 442E is supplied with 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. Auxiliary 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 442E 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 Option

The 442E 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 442E has a dig depth of 6.2m, 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 442E 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 442E 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 442E 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 442E 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 442E, with a wide choice of tools on offer to suit your needs.



## Backhoe Buckets

Caterpillar 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    |
| • Auger                     | • 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

442E has a 40 kph transmission as standard - less time on the road, more time on the job site.

## 40 kph Power-Shuttle Transmission

The 442E comes equipped with 40 kph 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 lever on the steering column is placed for easy direction changes on the move, and the gear selection is from the floor mounted shift lever.

## Large Torque Converter

The 442E has a larger torque converter, which equates to more rimpull, improving loading and roading performance considerably.

## Optional All Wheel Steer

The 442E is available with AWS, enabling 2WS, Circle Steer, or Crab Steer to be selected for those tight situations. This makes the machine far more manoeuvrable in confined working areas.

## Diff-Lock

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

## 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.

## Cat Engine

The 442E 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. The 74.5kW gross engine provides enough power and performance for the toughest of jobs matching 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.

## 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.

# Serviceability

Lower operating costs mean a better return on your asset.

## Reduced Maintenance

The 442E 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 442E.

## 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•S<sup>SM</sup>. 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.



# 442E Specifications

Engine	Cat 3054C*	C4.4**
Aspiration	Turbocharged	Turbocharged
Rated Power (standard)	2200 rpm	2200 rpm
Gross – SAE J1995	74.5kW/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 1400 rpm	26%	23%
Peak Torque Rise at 1400 rpm		
74.5 kW/95 hp	408 Nm	400 Nm
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 3000 m

\* 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 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.
- Poly vee front end and auxiliary drive belt that is automatically tensioned for long life reducing operating costs.

## 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-Centre	
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 activated 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 brake. Parking brake is mechanically applied through a hand lever in the right hand side console.

Meets ISO 3450:1996 requirements.

## 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.

# 442E Specifications

## All Wheel Steer Option

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

- Two wheel steer mode
- Circle-steer mode
- Crab steer

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	65mm	85mm
Stroke	120mm	63mm
Rod diameter	36mm	42mm
Turning Circle		
Two wheel steer	10840 mm	
Circle-Steer	9360 mm	

## Axles

### 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 52° steering angle for increased maneuverability.
- Optional All Wheel Steer.

## Transmission

Caterpillar Power-Shuttle Transmission or optional Auto-Shift 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 convertor free-wheel clutch allows the convertor stator to free-wheel during high speed, low-load conditions, such as roading. The optional Autoshift Transmission provides Five Speed and Three Reverse Gears.

### 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, 2.64 stall ratio

### Travel Speeds

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

	Power Shuttle (Standard)	Auto-Shift (optional)
Forward	kpm	kph
1st	6	6
2nd	10	10
3rd	20	20
4th	40	27
5th		40
Reverse		
1st	6	6
2nd	10	12
3rd	20	27
4th	40	-

## Service Refill Capacities

	Litres
Cooling System	
without heater	23.0
with heater	25.0
Fuel Tank	160.0
Engine with Oil Filter	7.6
Transmission (Power Shuttle)	
AWD	18.5
Transmission (Auto Shift)	
AWD	19.0
Rear Axle (Rigid)	
Centre Housing	16.5
Centre Housing Additive	0.5
Wheel End/Final Drive (volume per slide)	1.7

## Service Refill Capacities

	Litres
Rear Axle (Steerable)	
Centre Housing	16.0
Centre Housing Additive	0.5
Wheel End/Final Drive (volume per side)	1.7
Front Axle (AWD)	
Centre Housing	11.0
Wheel End/Final Drive (volume per side)	0.7
Hydraulic System (min/max)	79/99
Hydraulic tank	40

## Weights

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

	kg
Operating weight (range)	7940-10700
Standard machine weight	8692
ROPS canopy	-260
Autoshift	50
Air conditioning	46
Multi-purpose bucket 1.03 m3	
With fold-over forks	835
Without fold-over forks	700
Counterweights	
Base	115
Stackables – One	235
Stackables – Max	485

## Minimum Counterweight

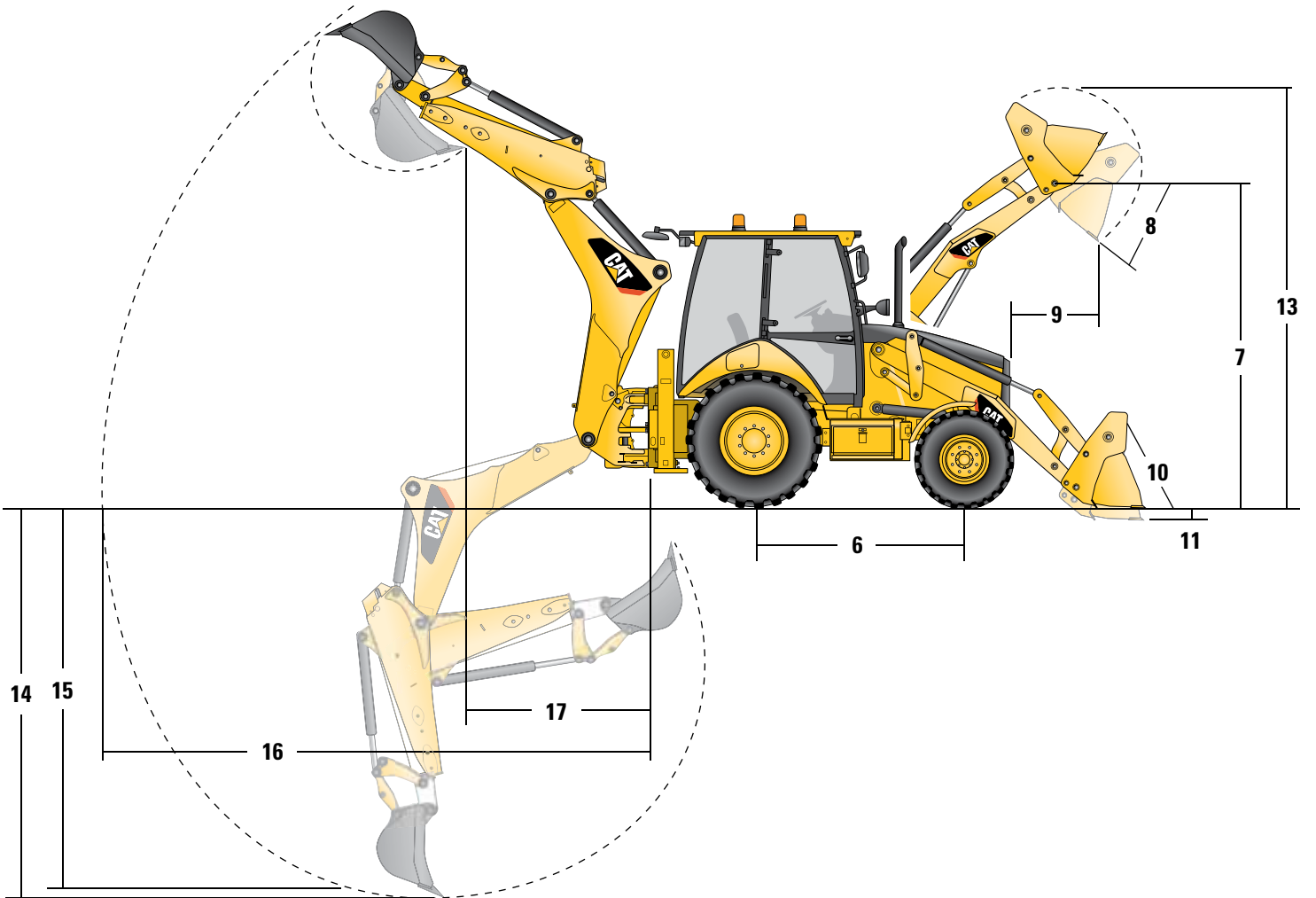
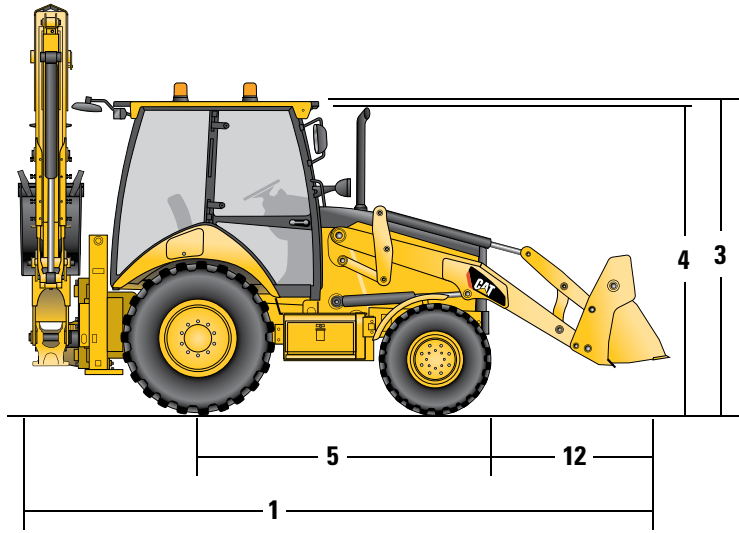
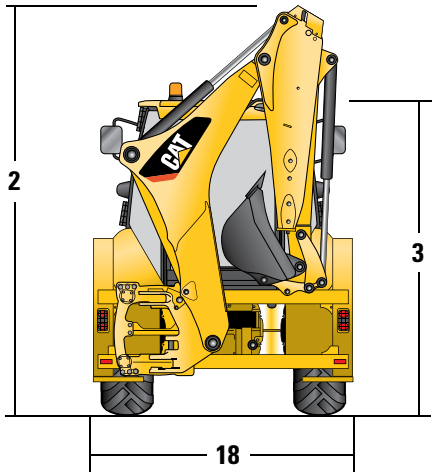
### Recommendations:

Standard Stick	
General Purpose	235
Multi Purpose	115
Multi purpose with fold-over forks	Base
Extendible Stick	
General Purpose	485
Multi Purpose	235
Multi Purpose with fold-over forks	115

## 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
Auto-up Stabilizers		optional
Seat Belt (50mm)	√	√

# 442E Specifications



## Machine Dimensions

		General Purpose	Multi Purpose	Multi Purpose with Forks
<b>1</b>	Overall length (loader on ground) S-Stick	mm	5809	5752
	Overall length (loader on ground) E-Stick	mm	5809	5752
	Overall transport length S-Stick	mm	5834	5810
	Overall transport length E-Stick	mm	5839	5814
<b>2</b>	Overall transport height S-Stick	mm	3914	3914
	Overall transport height E-Stick	mm	3939	3939
	Overall Width (Standard)	mm	2368	2368
<b>3</b>	Height to top of cab/canopy	mm	2863	2863
<b>4</b>	Height to top of exhaust stack	mm	2779	2779
	Height to loader hinge pin (transport)	mm	403	429
	Ground clearance (minimum)	mm	358	358
<b>5</b>	Rear axle centerline to front grill	mm	2704	2704
	Front wheel tread gauge	mm	1915	1915
	Rear wheel tread gauge	mm	1713	1713
	Wheel based (AWD)	mm	2200	2200

## Dimensions and Performance - Loader Bucket

		General Purpose	Multi Purpose	Multi Purpose with Forks
	Capacity (SAE rated)	m <sup>3</sup>	1.0	1.03
	Width	mm	2406	2406
	Lift capacity at maximum height	kg	3322	2899
	Breakout force	kN	55	60
	Tipping load at bucket load point	kg	7696	7652
<b>7</b>	Maximum hinge pin height	mm	3340	3340
<b>8</b>	Dump angle at full height		45°	45°
	Dump height at maximum angle	mm	2634	2668
<b>9</b>	Dump reach at maximum angle	mm	795	724
<b>10</b>	Maximum bucket rollback at ground level		39°	40°
<b>11</b>	Digging depth	mm	91	118
	Maximum grading angle	mm	112°	115°
	Width of dozer cutting edge	mm	-	2406
<b>12</b>	Grill to bucket cutting edge, carry position	mm	1505	1480
<b>13</b>	Maximum operating height	mm	4238	4264
	Jaw open maximum	mm	-	790
	Bucket jaw clamping force	kN	-	61
	Weight (not including teeth)	kg	428	611

## Dimensions and Performance - Backhoe

		Extendable Stick		
		Retracted	Extended	
<b>14</b>	Digging depth, SAE maximum	mm	4633	5663
	Digging depth, maximum	mm	5302	6294
<b>15</b>	Digging depth, 610 mm flat bottom, SAE maximum	mm	4609	5631
	Digging depth, 610 mm flat bottom, maximum	mm	5255	6258
<b>16</b>	Reach from swing pivot at ground line	mm	6129	7080
	Loading height	mm	4247	4790
	<b>17</b> Loading reach	mm	1723	2622
	Swing arc		180°	180°
	Bucket rotation		205°	205°
<b>18</b>	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.

Air cleaner, dry type, axial seal with pre-cleaner and filter condition indicator  
All Wheel Drive  
Alternator, 120-amp, 12 volt  
Antifreeze (to -37°C)  
Audible system fault alarm  
Backhoe, 4633 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\*\* (74 kW) or  
Cat C4.4\* (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  
Front and rear windshield wipers  
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  
Key start/stop system with auxiliary position  
Lifting eye, backhoe (Non EU countries)  
Lights, working (4 front, 4 rear)  
Load sensing, variable flow system with axial piston pump

Mirror, exterior, rearview, large  
Power receptacle, 12 V (2)  
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 cancelling directional indicator  
Spin-on fuel, engine, hydraulic and transmission oil filters  
Starting system, thermal aid  
Stop and tail lights (2)  
Swing transport lock  
Tilt steering column  
Tires (2 front, 2 rear)  
Torque convertor  
Throttles, hand and foot  
Transmission, four-speed synchromesh  
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  
All Wheel Steer  
Attachments, front Loader  
  General purpose bucket 1.0 m<sup>3</sup>  
  Multi purpose bucket 1.03 m<sup>3</sup>  
  1.03 m<sup>3</sup> 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)  
  Standard stick  
  Extendible stick  
Hydraulic lines  
  Hammer lines to stick  
  Quick disconnects  
Lights  
  Number plate, rear  
  Roading  
Object Handling Installation including lift eye, boom and stick locks and audio-visual warning system

Operators station  
Powered Side Shift  
Ride control  
Rotating beacon  
Stabilizer street pads  
Stick, extendible  
Transmission, Autoshift  
Transport locks  
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.

	<b>422E</b>
<b>Engine Power (Gross)</b>	<b>56.6 kW 77 HP</b>
Control Type	Mechanical
Steer Mode	Two Wheel Steer
SAE Maximum dig depth (standard stick)	4.2 m
Loader Bucket Capacity	1.0 m <sup>3</sup>
Loader Breakout Force	33 kN
Stick Tearout force	35 kN
Bucket Tearout force	63 kN
Hydraulic oil flow	125 l/min



	<b>428E</b>	<b>432E</b>	<b>442E</b>
<b>Engine Power (Gross)</b>	<b>68.5 kW 93 HP</b>	<b>68.5 kW 93 HP</b>	<b>74.5kW 101 HP</b>
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 m <sup>3</sup>	1.0 m <sup>3</sup>	1.0 m <sup>3</sup>
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



	<b>434E Mechanical</b>	<b>434E Pilot</b>	<b>444E</b>
<b>Engine Power (Gross)</b>	<b>68.5 kW 93 HP</b>	<b>74.5 kW 101 HP</b>	<b>74.5 kW 101 HP</b>
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 m <sup>3</sup>	1.15 m <sup>3</sup>	1.3 m <sup>3</sup>
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



# 442E Backhoe Loader

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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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