

428E

Backhoe Loader

CATERPILLAR®



Cat® 3054C Naturally Aspirated Diesel Engine	Standard	Optional
Gross power (SAE J1995) at 2200 rpm	68.5 kW/93 hp	74.5 kW/101 hp
Net Power (ISO 9249) at 2200 rpm	65 kW/89 hp	71 kW/97 hp
Cat® C4.4 Turbocharged After cooled Engine	Standard	Optional
Gross power (SAE J1995) at 2200 rpm	70 kW/95 hp	74.5 kW/101 hp
Net Power (ISO 9249) at 2200 rpm	67 kW/91 hp	71 kW/97 hp
Operating Weight	7570-10 200kg	

Backhoe Digging Depth

Standard Stick	
SAE Maximum	4298 mm
Maximum	4913 mm
Extendable Stick	
SAE Maximum	5294 mm
Maximum	5853 mm

428E 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.

Service

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

Value

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



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Caterpillar’s 428E – A highly productive Backhoe Loader developed with over 20 years experience in the Backhoe Loader industry, the 428E is designed to exceed customer expectations. More performance, versatility and comfort than ever before gives the 428E 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 428E.



Lower Operating Costs

The 428E 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.

Improved Weight Distribution

The 428E 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.

Excavator Controls

The 428E is offered with a choice of excavator control: Backhoe (SAE) Excavator (ISO) or universal controls (X Pattern). This ensures the 428E will suit any type of operator.

Large Fuel Tank

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

Electro-Deposition Coating

Your 428E 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 428E will stay looking good for longer, ensuring optimum resale value.





Work Station

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

The 428E 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 428E 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 428E 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 428E 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 428E 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

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

The 428E Parallel Lift Loader now has even greater performance

Loader Performance

The 428E Parallel Lift Loader offers self levelling as standard, ensuring faster loading cycles. Designed with performance in mind the 428E 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 428E 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 428E 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 428E 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 428E is available 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 428E 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 428E is equipped with Cat Cushion Swing, which enables very fast trenching by damping the boom oscillation down when returning to trench with the hoe.





Hydraulics

Efficient flow-sharing hydraulics give the 428E even greater control.

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 428E 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 428E 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 428E 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 428E, 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"/228 mm 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

A Cat quick coupler is available for easy hoe bucket changes.

Hydro-Mechanical Work Tools

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

- H65 Hydraulic Hammer
- Auger
- Vibratory Plate Compactor
- Cold Planer

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





Power Train

428E has a 40 kph transmission as standard - less time on the road, more time on the job site.

Cat 3054C Engine

The 428E 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.

40 kph Power-Shuttle Transmission

The 428E 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.

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.

Diff-Lock

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

High Ambient Cooling

The 428E is equipped with a High Ambient (HA) engine cooling package, allowing the machine to be operated in temperatures up to 50°C.

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.

Serviceability

Lower operating costs mean a better return on your asset.



Reduced Maintenance

The 428E 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 428E.

Boom and Stick Design

The Boom and Stick design allows all wear adjustment to be done with Stick in-situ, using a simple 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

Lower operating costs with 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?

428E Specifications

Engine	Cat 3054C*	C4.4**
Rated Power (standard)	2200 rpm	2200rpm
Gross – SAE J1995	68.5 kW/93 hp	70 kW/95 hp
Net – ISO 9249	65 kW/89 hp	67 kW/91 hp
Net – 80/1269/EEC	65 kW/89 hp	67 kW/91 hp
Rated Power (optional)	2200 rpm	2200 rpm
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 1400 rpm		
68.5 kW/93 hp	33%	-
70 kW/95 hp	-	30%
74.5 kW/101 hp	26%	23%
Peak Torque Rise at 1400 rpm		
68.5 kW/93 hp	395 Nm	-
70 kW/95 hp	-	395 Nm
74.5 kW/101 hp	408 Nm	400 Nm
Bore	105 mm	105 mm
Stroke	127 mm	217 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.
- Can be operated at altitudes up to a maximum 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 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.
- 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

Choice of standard Two Wheel Drive or optional All Wheel Drive.

Features

- Heavy-duty rear axle with self adjusting inboard brakes, differential lock and final drives.
- 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 front axle is pendulum mounted and permanently sealed and lubricated, requiring no daily maintenance. Also features double acting steering cylinder with 52° steering angle for increased manoeuvrability.

Steering

Full hydrostatic steering controlled by a hand-metering unit. Secondary steering 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 (AWD)	
Bore	65 mm
Stroke	120 mm
Rod diameter	36 mm
Turning Circle	
Inner wheel not braked 4WD	
Outside front wheels	8180 mm
Outside widest loader bucket	10 800 mm

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.

428E Specifications

Weights

Standard single tilt 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)	7570 - 10200
Standard machine weight	7807
ROPS canopy	-260
Air conditioning	48
Multi-purpose bucket 1.03 m3	
With fold-over forks	755
Without fold-over forks	700
Extendible stick (excludes front counterweight)	230
Counterweights	
Base	115
Stackables – One	235
Stackables – Max	485

Minimum Counterweight

Recommendations:

Standard Stick (power train AWD)	
General Purpose	145
Multi Purpose	Base
Multi purpose with fold-over forks	Base
Extendible Stick (power train AWD)	
General Purpose	460
Multi Purpose	235
Multi Purpose with fold-over forks	115

Cab Features

RH fixed door with opening window	√
RH opening door with opening window	√
LH opening door with opening window	√
2 rear side fixed windows	√
Basic 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	√
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	√
Seat belt (50 mm)	√

428E Specifications

Service Refill Capacities

	Liters
Cooling System	
without heater	24.0
with heater	25.0
Fuel tank	160.0
Engine with oil filter	7.6
Transmission	
Power Shuttle	18.5
Rear Axle (Rigid/Steerable)	
Center Housing	16.5
Center Housing Additive	0.5
Wheel End/Final Drive (volume per side)	1.7
Front Axle AWD	
Center Housing	11.0
Wheel End/Final Drive (volume per side)	0.7
Hydraulic System min/max	79/99
Hydraulic Tank	40

Hydraulic System

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

Type	
Closed-center	
Pump type	
Variable-flow, axial-piston	
Pump capacity	125 lpm at 2200 rpm
System pressure	227 bar

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.

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.

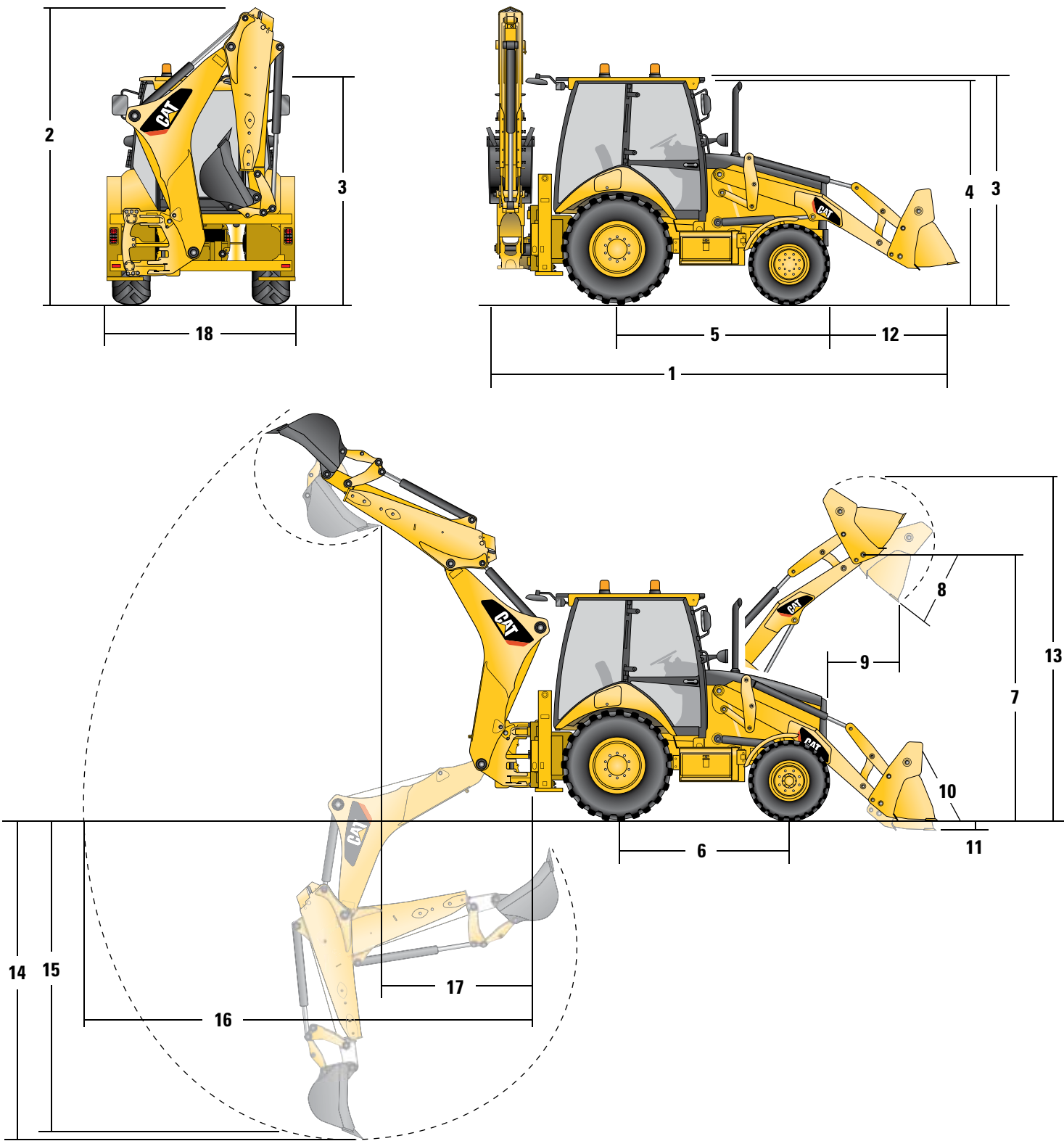
Forward	kph
1st	6
2nd	10
3rd	20
4th	40
Reverse	
1st	6
2nd	10
3rd	20
4th	40

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.

428E Specifications



428E Specifications

Machine Dimensions

		General Purpose	Multi Purpose	Multi Purpose with Forks
1	Overall length (loader on ground) S-Stick	mm	5855	5799
	Overall length (loader on ground) E-Stick	mm	5855	5799
	Overall transport length S-Stick	mm	5881	5856
	Overall transport length E-Stick	mm	5881	5856
2	Overall transport height S-Stick	mm	3736	3736
	Overall transport height E-Stick	mm	3736	3736
	Overall Width (Standard)	mm	2368	2368
	Overall Width (Narrow)	mm	2242	2242
3	Height to top of cab/canopy	mm	2863	2863
4	Height to top of exhaust stack	mm	2779	2779
	Height to loader hinge pin (transport)	mm	403	429
	Ground clearance (minimum)	mm	358	358
5	Rear axle centerline to front grill	mm	2704	2704
	Front wheel tread gauge	mm	1915	1915
	Rear wheel tread gauge	mm	1713	1713
6	Wheel based (AWD)	mm	2200	2200

Dimensions and Performance - Loader Bucket

		General Purpose	Multi Purpose	Multi Purpose with Forks
	Capacity (SAE rated)	m3	1.0	1.03
	Width	mm	2406	2406
	Lift capacity at maximum height	kg	3322	3069
	Breakout force	kN	55	61
	Tipping load at bucket load point	kg	5664	5655
7	Maximum hinge pin height	mm	3340	3340
8	Dump angle at full height		45°	45°
	Dump height at maximum angle	mm	2634	2668
9	Dump reach at maximum angle	mm	795	724
10	Maximum bucket rollback at ground level		40°	40°
11	Digging depth	mm	91	118
	Maximum grading angle	mm	112°	115°
	Width of dozer cutting edge	mm	-	2406
12	Grill to bucket cutting edge, carry position	mm	1505	1480
13	Maximum operating height	mm	4238	4264
	Jaw open maximum	mm	-	790
	Bucket jaw clamping force	kN	-	56
	Weight (not including teeth)	kg	428	611
				844

Dimensions and Performance - Backhoe

		Standard Stick	Extendable Stick	
			Retracted	Extended
14	Digging depth, SAE maximum	mm	4298	5294
	Digging depth, maximum	mm	4913	5853
15	Digging depth, 610 mm flat bottom, SAE maximum	mm	4255	5255
	Digging depth, 610 mm flat bottom, maximum	mm	4872	5792
16	Reach from swing pivot at ground line	mm	5652	6583
	Loading height	mm	3819	4458
17	Loading reach	mm	1743	2560
	Swing arc		180°	180°
	Bucket rotation		205°	205°
18	Stabilizer width	mm	2368	2368
	Bucket dig force	kN	63	63
	Stick dig force	kN	35	26
	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 precleaner and filter condition indicator
All Wheel Drive
Alternator, 120-amp, 12 volt
Antifreeze (to -37°C)
Audible system fault alarm
Backhoe, 4298 mm dig depth, side-shift, excavator-style backhoe 2 lever control
Battery, maintenance free, 750 CCA
Boom, transport lock
Brace, lift cylinder
Brakes, Kevlar disc, oil disc
Cable stabilizer controls
Cat 3054C* (68.5 kW) engine or
Cat C4.4** (70 kW) engine
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 cooling package
Hydraulic oil cooler
Indicators: Air cleaner service, brake on, engine coolant, hydraulic oil level sight gauge
Intermittent front and rear wash/wipe, Instrument panel lights
Key start/stop system 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, 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
Stop and tail lights (2)
Swing transport lock
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
Attachments, front loader
General purpose bucket 1.0 m3
Multi purpose bucket 1.03 m3 or 1.03 m3 with forks
Attachments, hoe work tools
Quick Coupler (mechanical)
Battery, additional
Caterpillar 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, 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
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
Powered Side Shift
Ride control
Rotating beacon
Stabilizer street pads
Stick, extendable
Tilt steering wheel
Tool box, external
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.

	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 m ³
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 m ³	1.0 m ³	1.0 m ³
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 m ³	1.15 m ³	1.3 m ³
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



428E Backhoe Loader

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