

# 420E/420E IT

Backhoe Loaders

**CATERPILLAR®**



## Engine

Engine Model	Cat® C4.4 ACERT® DIT	
Gross Power @ 2,200 rpm – SAE J1995	75 kW	101 hp
Net Power @ 2,200 rpm – SAE J1349	69 kW	93 hp
Net Peak Power @ 1,800 rpm – SAE J1349	71 kW	95 hp

## Weights

Operating Weight – Nominal	6895 kg	15,201 lb
Operating Weight – Maximum	11 000 kg	24,251 lb

## Backhoe

Dig Depth – Standard	4360 mm	14 ft 4 in
Dig Depth – E-Stick Extended	5456 mm	17 ft 11 in

## 420E/420E IT Features

### World-Class Cab

Standard air suspension seat, extra legroom and more visibility make you feel comfortable – for a safer, more productive work day.

### Easy Joystick Control

Ergonomic joystick controls provide smooth operation and low operator effort.

### Improved Power Train

Top travel speed of 25 mph/40 km/h so you can get on and off the site faster.

### More Work Tools

Do more jobs with one machine. The thumb lets you grip, grab and sort virtually any material.



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**With standard pilot-operated joystick controls, a more comfortable operator station, extendible stick design and increased performance, the 420E/420E IT lets you get more done with less effort.**

# Operator Station

Comfort, visibility and style.

Experience a whole new level of comfort with the spacious E-Series operator station. The ergonomic, automotive style enhances the operator environment. A narrow front dash provides excellent visibility to the front bucket. Reduced vibration keeps operator fatigue low. In-cab storage compartment and lockable tool and battery box provides ample space for tools and belongings. The operator station also features an easy-to-read gauge cluster and increased legroom.

## Automatic Engine Speed Control

This new feature reduces engine speed when the backhoe is not in use to conserve fuel and lower environmental noise.

## Air Suspension Seat

The standard air suspension seat is adjustable for a greater operating range and more comfortable ride. A switch allows the seat to be tailored to support differing body weights. Adjustable seat height accommodates all operators. The deluxe cab air suspension seat also has an adjustable back support, lumbar support, seat cushion extension, seat cushion tilt and vertical and angle adjusting armrests.

## Improved Air Conditioning

The improved air conditioning system features enhanced air distribution and performance for a more comfortable work environment. A nearly 20% increase in air flow combined with improved louver locations provide superior operator comfort.

## Configurations

The 420E operator station is available in 5 options – ROPS Canopy, ROPS Canopy Plus, Standard Cab, Deluxe Cab and Deluxe Cab with Air Conditioning. See Standard and Optional Equipment for details.



# Controls

## Reduce fatigue.

Low effort, ergonomic excavator-style joystick controls provide smooth modulation. Thumb rollers provide convenient, fingertip control of auxiliary functions, eliminating pedals on the floor.

## One-Touch Low Idle

Located on the right hand joystick, this button reduces engine speed to low idle. This new feature will reduce fuel consumption and improve communication with ground crew.

## Pattern Selector

The pattern selector switch, located in the cab, allows the operator to change from excavator to backhoe control pattern simply by pressing a button. This allows the operator to use the pattern they are most familiar with to get more done, faster.



# Hydraulics

Load-sensing system matches power to demand.



The 420E has a load-sensing, closed center hydraulic system, which closely matches power and flow to the demand needed by the implements. So whether you're in full trenching mode, or delicately digging around services, you are in control. In applications such as production trenching, speed is important and the system will match the flow needed to get the job done quickly and efficiently. The load-sensing hydraulic system also delivers:

- A cooler hydraulic system
- Better fuel efficiency
- Quieter operation
- Reduced wear on components

Cat XT-3 ES ToughGuard™ hoses combined with Cat couplings and O-ring face seal fittings provide a leak-free system. The 420E also features new flow-sharing hydraulic valves, ensuring proportional flow of oil to all hydraulic cylinders, providing greater control and improving multi-function performance.

## Ride Control

Delivers even greater operator comfort.

The optional Ride Control System smooths the ride in all conditions, including load and carry, highway roading, or simply moving around the job site. It reduces machine loping, providing a smooth and stable ride for increased operator comfort and reduced operator fatigue. The Ride Control option improves material retention in the loader bucket for increased productivity and a cleaner job site.

The system is easily engaged by a switch on the front console. The Ride Control switch has three positions, ON, OFF and AUTOMATIC. In the automatic position, the Ride Control engages automatically as the travel speed increases. At low speed, the system disengages for loading, grading or finishing applications.



# Power Train

Built for performance, power, reliability and fuel efficiency.

## Cat Engine

The 420E features the Cat® C4.4 DIT (Direct Injection Turbocharged) engine with ACERT® technology and meets all U.S EPA Tier 3/EU Stage IIIa emissions requirements. The increased horsepower and torque rise deliver improved loading and roading performance.

- Electronic engine control provides precise fuel metering for optimized power, response and fuel efficiency.
- The water separator service indicator ensures the operator is alerted when service is necessary.
- Dry-type axial seal air cleaner with automatic, integrated dust ejection system for more efficient pre-separation. Both air cleaner and precleaner functions are incorporated into a single unit mounted under the hood.

## Transmission

The Cat standard power shuttle transmission provides four speeds forward and reverse. Hydraulically shifted clutches allow on-the-go direction and travel speed shifts. The optional auto-shift transmission matches gears with grade and load conditions. Top gear is selected with the twist grip control on the steering wheel.

- Hydraulic proportional control valves smooth speed and directional shifts.
- Transmission Kick-Down Switch/Neutralizer allows the operator to downshift through the gears to first.
- Four Wheel Drive (4WD) option improves mobility and loader performance in poor underfoot and can be activated on-the-go.
- Maximum roading speed of 40 km/h (25 mph) for faster travel between job sites.
- Cat Rear Axles are designed specifically for demanding backhoe loader applications. Axles feature outboard planetary gear sets for easy serviceability and brake design improvements for longer service life.

## Brake Mode Selector

The brake mode selector switch has three positions: two wheel drive, two wheel drive with all wheel braking and four wheel drive. Two wheel drive with all wheel braking provides better tire life while roading and engages the front axle when brakes are applied for improved braking performance.



# Loader

Choice of loader linkage to meet your needs.



Caterpillar offers a choice of single tilt or integrated toolcarrier (IT) loader linkage to suit your application requirements. The IT loader controls provide single lever proportional control and fine modulation of the hydraulic work tools. A thumb roller operates auxiliary hydraulic functions such as the multi purpose bucket on the IT machines.



## Single Tilt

The standard single tilt loader linkage features strong lift and breakout forces for solid performance in backfilling and truck loading applications.



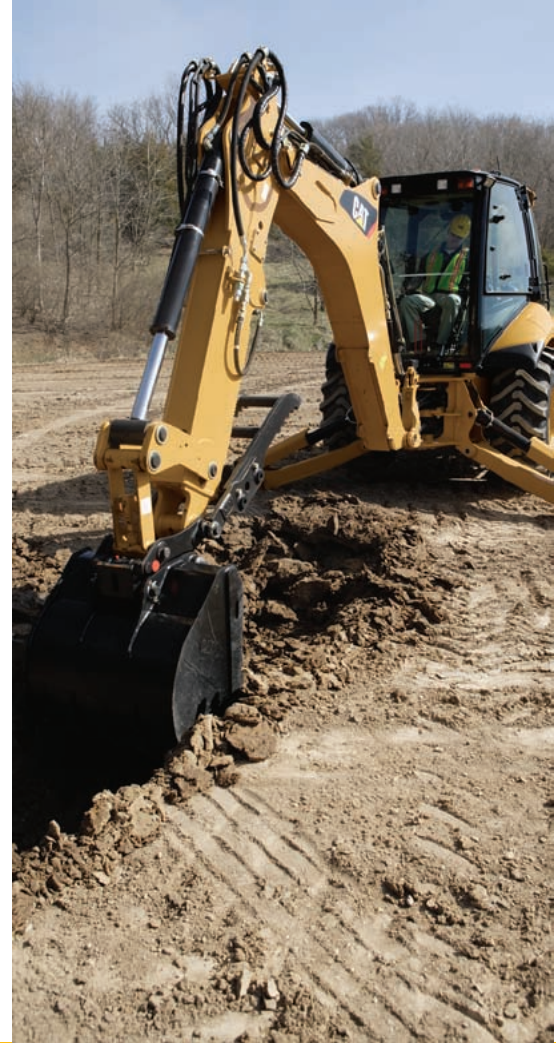
## Integrated Toolcarrier

The optional integrated toolcarrier (IT) loader linkage provides higher breakout forces, as well as parallel lift, for efficient loading and material handling. Integrated toolcarriers are highly versatile and can use a wide range of Cat Work Tools for a variety of applications.



## Return-to-Dig

The return-to-dig system reduces loading cycle times by bringing the loader bucket back to the dig position with an easy pull of the lever. By the time the loader bucket is at ground level, the bucket is angled correctly for the next load or cut.



# Backhoe

Boom and stick designed for high performance and easy service.

The E-Series backhoe delivers industry-leading digging forces. Serrated edges on the stick provide improved material clamping for clearing and demolition applications. The single pin bucket linkage contributes to best-in-class rotation of 205 degrees for all applications.

## **E-Stick Design**

The optional extendible stick (E-stick) increases reach and dig depth by approximately 1.2 meters (4 feet). The new design delivers increased life and easy in-field adjustment with common hand tools.

## **Curved Boom**

The excavator-style boom is built for optimum performance and durability. The curved design provides additional clearance over obstacles while digging a trench or truck loading. The narrow boom enhances the viewing area to the bucket and trench throughout the entire operating range.

## **Thumbs**

Thumb mounting provisions are standard on every Cat Backhoe Loader for added machine versatility. Hydraulic thumbs are available factory-installed. Mechanical thumbs are available through your Cat Dealer.

# Serviceability

Easy access and minimal maintenance requirements maximize uptime.



Convenient service features make maintenance easy, reducing your downtime.

- Tilt-up hood provides convenient access to all engine check points.
- Fill caps are color-coded for quick identification.
- Electronic control modules store fault codes for easy, efficient troubleshooting and maximum uptime.
- S•O•S<sup>SM</sup>, Coolant Sampling and Technical Analysis help you avoid unscheduled repairs.
- Caterpillar is committed to providing you with a safe work environment. For more information please visit [SAFETY.CAT.COM](http://SAFETY.CAT.COM)<sup>TM</sup>.

## Customer Support Makes the difference.

Your Cat dealer is ready to assist you with your purchase decision and everything after.

- Financing packages are flexible to meet your needs.
- Your Cat dealer can evaluate the cost to repair, rebuild and replace your machine, so you can make the right choice.
- Nearly all parts are available at your Cat dealer parts counter.
- See your dealer's website or [www.cat.com](http://www.cat.com) to customize the machine that is right for you using the Build and Quote applications. Also find information on other Cat products, dealer services and industry solutions.





# Technology Products

Advanced technologies improve productivity and simplify serviceability.

## AccuGrade™ System

The AccuGrade system for backhoe loaders improves digging accuracy and site safety by eliminating the need for manual grade measuring. Both the Site and Laser Reference Systems save time and money in a variety of digging and trenching applications.

## Site Reference System

The Site Reference System allows the operator to excavate to pre-determined coordinates. The intuitive software and controls allow the operator to set target grades.

An in-cab display allows the operator to enter slope and dig depth parameters. Easy to read grade indicator and elevation display delivers all system information to the cab for easy viewing by the operator. System includes rugged components built to withstand the harshest environments:

- In-cab display
- Cylinder position sensors
- Swing position sensor
- Inclinometer
- Wiring harnesses

## Laser Reference System

The Laser Reference System works with laser transmitters to accurately grade or excavate to a site plan without the use of grade stakes. The Laser System includes all the components of the Site Reference System with the addition of the following:

- Laser receiver
- Electric mast and mount
- Laser wiring harness

Note: Laser transmitter and tripod sold separately

## Product Link

Product Link uses GPS technology to provide machine data, including service hours, location, events and diagnostic information, to you through a web-based application or e-mail/pager notification.

## Machine Security System

An optional Machine Security System (MSS) that utilizes a programmable key system deters theft, vandalism and unauthorized usage. MSS uses electronically coded keys selected by the customer to limit usage by individuals or time parameters.



# Work Tools

Do more jobs with one machine.



## Backhoe Work Tools

A large selection of backhoe tools – including a new hydraulic thumb – gives you the flexibility to serve more customers, more profitably.

- Standard Duty, Heavy Duty, Heavy Duty Rock, Pin Lock, Soil Excavation, Coral and Ditch Cleaning Buckets
- Cold Planer
- Hydraulic Hammer
- Auger
- Ripper
- Mechanical and Hydraulic Thumbs
- Quick Coupler
- Vibratory Plate Compactor

## Loader Work Tools

The versatile loader tool line includes a wide variety of options from angle blades to asphalt cutters:

- General Purpose, Multi Purpose, Side Dump and Light Material Buckets
- Angle Blade
- Broom
- Rake
- Asphalt Cutter
- Loader Forks
- Bale Spear
- Material Handling Arm
- Snow Plow

## IT Quick Coupler

The quick coupler allows quick connection to selected work tools. Mechanical work tools can be changed in less than 30 seconds from the comfort of the operator station.

## The right bucket makes all the difference

To get top performance from your Cat backhoe loader, be sure your machine is equipped with the proper bucket and tips. The soil excavation bucket provides the best productivity in most conditions.

## DRS 230 (Diagonal Retention System)

Heavy-duty bucket teeth are attached with diagonal pins rather than horizontal pins for easy exchange.

## Engine

Engine Model (Standard)	Cat® C4.4 ACERT® DIT	
Gross Power – SAE J1995	75 kW	101 hp
Gross Power – ISO 14396	75 kW	101 hp
Net Power – SAE J1349	69 kW	93 hp
Net Power – ISO 9249	70 kW	94 hp
Net Power – EEC 80/1269	70 kW	94 hp
Net Peak Power @ 1,800 rpm – SAE J1349	71 kW	95 hp
Net Peak Power @ 1,800 rpm – ISO 9249	72 kW	97 hp
Net Peak Power @ 1,800 rpm – EEC 80/1269	72 kW	97 hp
Bore	105 mm	4.13 in
Stroke	127 mm	5 in
Displacement	4.4 L	268 in³
Net Torque Rise @ 1,400 rpm – Standard	36%	
Net Peak Torque @ 1,400 rpm – Standard – SAE J1349	408 N·m	301 lb ft

- Engine meets all U.S. EPA Tier 3/ EU Stage IIIa emissions requirements.
- The net power ratings apply at 2,200 rpm when tested under the specified conditions for the specified standard.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- Based on standard air conditions of 25° C (77° F) and 99 kPa (29.32 in) in dry barometer.
- Used 35° API gravity fuel having an LHV of 42 780 kJ/kg (18,390 BTU/lb) when used at 30° C (89° F) (reference a fuel density of 838.9 g/L [7.001 lb/gal]).
- No derating required up to 3000 m (9,843 ft).
- Net torque rise meets SAE J1349.
- Net peak power ratings apply at conditions specified above.

## Weights

Operating Weight – Nominal	6895 kg	15,201 lb
Operating Weight – Maximum	11 000 kg	24,251 lb
Cab, ROPS/FOPS	260 kg	573 lb
Auto-Shift	27 kg	60 lb
Transmission		
Ride Control	25 kg	55 lb
Air Conditioning	39 kg	86 lb
Four Wheel Drive	155 kg	342 lb
Loader, IT w/QC	365 kg	805 lb
Extendible Stick (no weights)	299 kg	659 lb
Counterweights (Option 1)	116 kg	255 lb
Counterweights (Option 2)	231 kg	510 lb
Counterweights (Option 3)	488 kg	1,075 lb

- Total gross machine weight not to exceed 11 000 kg (24,251 lb).

## Backhoe

Dig Depth – Standard	4360 mm	14 ft 4 in
E-Stick Retracted	4402 mm	14 ft 5 in
E-Stick Extended	5456 mm	17 ft 11 in
Reach from Swing Pivot – Standard	5618 mm	18 ft 5 in
E-Stick Retracted	5657 mm	18 ft 7 in
E-Stick Extended	6666 mm	21 ft 10 in
Bucket Rotation	205 Degrees	
Bucket Dig Force – Standard	61.7 kN	13,875 lb
E-Stick Retracted	60.9 kN	13,863 lb
E-Stick Extended	60.9 kN	13,863 lb
Stick Dig Force – Standard	43 kN	9,662 lb
E-Stick Retracted	42.8 kN	9,616 lb
E-Stick Extended	31.2 kN	7,023 lb
Stick Lift @ 2440 mm (8 ft) – Standard	2601 kg	5,722 lb
E-Stick Retracted	2408 kg	5,298 lb
E-Stick Extended	1620 kg	3,564 lb
Loading Height – Standard	3636 mm	11 ft 11 in
E-Stick Retracted	3577 mm	11 ft 9 in
E-Stick Extended	4145 mm	13 ft 7 in
Loading Reach – Standard	1768 mm	5 ft 10 in
E-Stick Retracted	1868 mm	6 ft 1 in
E-Stick Extended	2771 mm	9 ft 1 in

# 420E/420E IT Specifications

Loader		
Bucket Capacity – General Purpose	0.96 m <sup>3</sup>	1.25 yd <sup>3</sup>
Bucket Width – General Purpose	2262 mm	7 ft 5 in
Dump Height @ Max Angle – Single Tilt	2573 mm	8 ft 5 in
Dump Height @ Max Angle – IT with QC	2507 mm	8 ft 3 in
Dump Reach @ Max Angle – Single Tilt	853 mm	2 ft 10 in
Dump Reach @ Max Angle – IT with QC	831 mm	2 ft 9 in
Dig Depth – Single Tilt	106 mm	4 in
Dig Depth – IT with QC	147 mm	6 in
Lift Capacity @ Full Height – Single Tilt	2929 kg	6,457 lb
Lift Capacity @ Full Height – IT with QC	3164 kg	6,975 lb
Bucket Breakout Force – Single Tilt	45.6 kN	10,242 lb
Bucket Breakout Force – IT with QC	47.1 kN	10,593 lb

Hydraulic System		
Circuit Type	Closed center, load sensing	
Pump Capacity (@ 2,200 rpm)	163 L/min	43 gal/min
System Pressure – Backhoe	24 900 kPa	3,611 psi
System Pressure – Loader	22 800 kPa	3,307 psi
Pump Type	Variable-flow, axial piston	
Steering Type	Front wheel	
Power Steering	Hydrostatic, HMU	
2WD Cylinder – Bore	65 mm	2.6 in
Stroke	120 mm	4.7 in
Rod Diameter	36 mm	1.4 in
4WD Cylinder – Bore	65 mm	2.6 in
Stroke	120 mm	4.7 in
Rod Diameter	36 mm	1.4 in
Brake System	Inboard, oil-immersed, multiple disc	

Power Train		
Power-Shuttle, Forward 1st	6 km/h	3.7 mph
Forward 2nd	9.6 km/h	5.9 mph
Forward 3rd	20 km/h	12 mph
Forward 4th	40 km/h	25 mph
Power-Shuttle, Reverse 1st	6 km/h	3.7 mph
Reverse 2nd	9.6 km/h	5.9 mph
Reverse 3rd	20 km/h	12 mph
Reverse 4th	40 km/h	25 mph
Auto-Shift (opt), Forward 1st	5.9 km/h	3.7 mph
Forward 2nd	9.5 km/h	5.9 mph
Forward 3rd	20 km/h	12 mph
Forward 4th	27 km/h	17 mph
Forward 5th	41 km/h	25 mph
Auto-Shift (opt), Reverse 1st	5.9 km/h	3.7 mph
Reverse 2nd	13 km/h	7.8 mph
Reverse 3rd	27 km/h	17 mph

- Auto-Shift automatically shifts between second gear and highest selected gear.
- Forward/reverse electric power shuttle is controlled by a conveniently placed, hand operated lever that provides instant direction changes between forward and reverse through power hydraulic clutches.
- Torque converter free-wheel clutch allows the converter stator to free-wheel during high speed, low torque conditions such as roading.
- Single-stage, 2.63:1 stall ratio.
- Travel speeds of two wheel drive backhoe loader at full throttle when equipped with 19.5 × 24 rear tires.

## Operating Specifications – Backhoe

Turning Circle:	8.18 m	26 ft 10 in
outside, front wheels		
Turning Circle:	10.97 m	36 ft
outside, widest loading bucket		

- ISO 5010.
- 2WD, 4WD (inner wheel not braked).

## Service Refills

Cooling System	20.5 L	5.4 gal
Fuel Tank	170 L	45 gal
Engine Oil w/Filter	7.6 L	2 gal
Transmission-Torque Converter, 2WD, Power Shuttle	18.5 L	4.9 gal
Transmission-Torque Converter, 4WD, Power Shuttle	18.5 L	4.9 gal
Transmission-Torque Converter, 4WD, Auto Shift	19 L	5 gal
Rear Axle	16.5 L	4.4 gal
Rear Axle, Planetaries	1.7 L	0.4 gal
Front Axle, 4WD	11 L	2.9 gal
Front Axle, Planetaries	0.7 L	0.2 gal
Hydraulic System	95 L	25.1 gal
Hydraulic Tank	38 L	10 gal

## Standards

Brakes	SAE J/ISO 3450, ISO 3450 1996
Cab – ROPS	SAE J1040 May 1994/ ISO 3741 1994
Cab – FOPS	SAE J/ISO 3449 APR98 LEVEL II and ISO 3449: 1992 LEVEL II
Cab – Sound	ANSI/SAE J1166 Oct 98 is 79 dB (A)
Exterior Sound	SAE J88 JUN86 is 76 dB (A)

## Axle Ratings

Front Axle, 2WD, Static	22 964 kg	50,582 lb
Dynamic	9186 kg	20,233 lb
Front Axle, 4WD, Static	22 964 kg	50,582 lb
Dynamic	9186 kg	20,233 lb
Rear Axle, Static	22 964 kg	50,582 lb
Dynamic	9186 kg	20,233 lb
Axle Oscillation	10 Degrees	

- 4WD and 2WD axles are pendulum mounted and permanently sealed and lubricated, requiring no daily maintenance. Also features double-acting steering cylinder with 52° steering angle for increased maneuverability.

## Engine Features

- Three-ring pistons made of lightweight, silicon/aluminum alloy for strength and maximum thermal conductivity.
- Forged chrome/molybdenum-steel crankshaft with crankshaft with either induction hardened or nitrocarburized journals.
- Front and rear crankshaft oil seals are “lip” type Viton and PTFE designs featuring an integral dust lip.
- Heat resistant, silicone-chrome steel intake and STELLITE-faced exhaust valves provide long 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 deck thickness. Intake and exhaust ports are precision cast to promote optimum gas flow.
- Direct injection fuel system provides accurate fuel delivery; remote mounted electric lift pump improves serviceability.
- Dry-type axial seal air cleaner with integral precleaner, automatic dust ejection system, and filter condition indicator.
- Direct electric, 12-volt starting and charging system with 880 CCA Group 31 maintenance free battery.
- Standard glow plug starting aid system for efficient cold weather starting.
- High contact ratio/gear train, peripheral fixed isolation top cover and open deck block design reduce bare engine noise.
- Higher low end torque for better engine/machine performance.

## Tires

Choices listed as combination of front/rear tires:

- 11L-16 (12 ply) F-3/19.5L-24 (12 ply) R4 ATU
- 12.5/80-18 NHS (12 ply) 1-3 Super Traction/19.5L-24 (12 ply) R4 ATU
- 12.5/80-18 NHS (12 ply) 1-3 Super Traction/21L-24 (16 ply) R4 ATU
- 340/80R 18 XMCL/500/70R 24 XMCL
- 340/80R 18 XMCL/19.5L-R24 (12 ply) R4 ATU

## Brakes

Features:

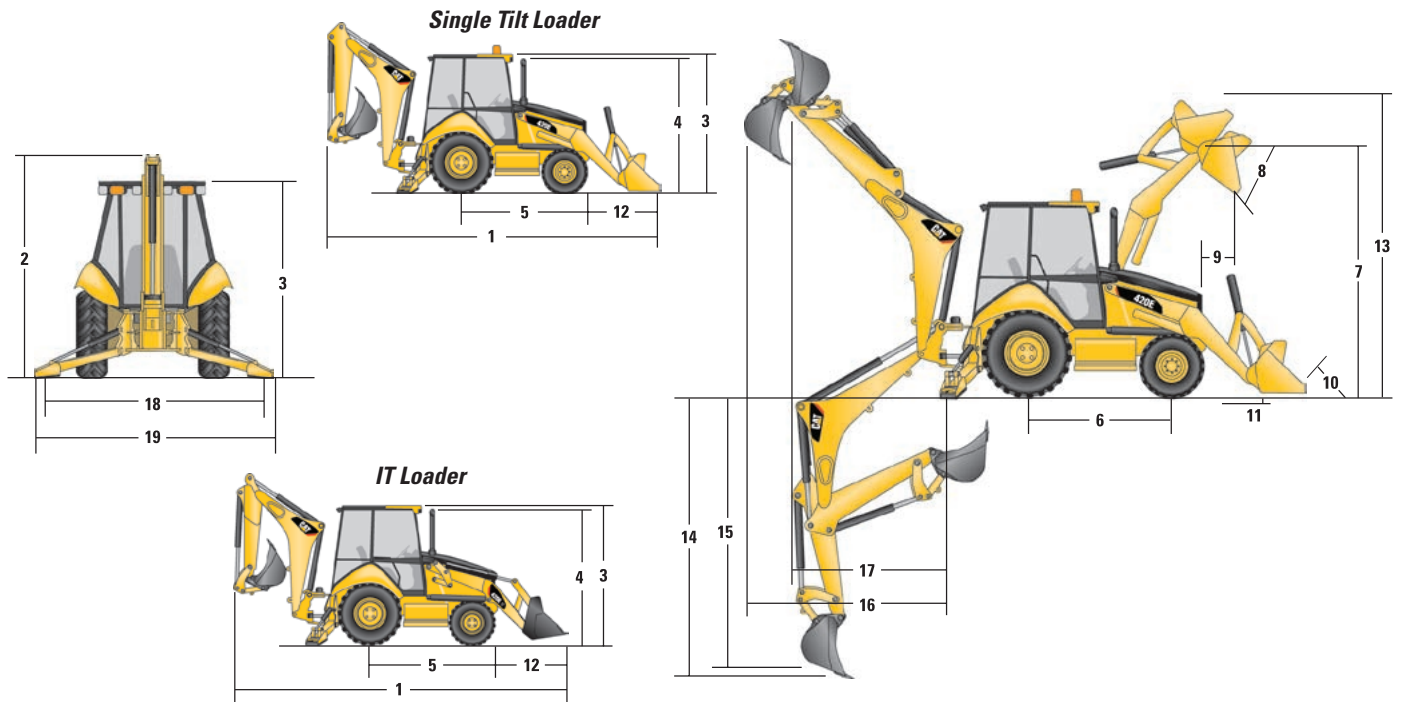
- Brakes meet the following standards: SAE J1473 and ISO 3450 requirements.
- Self-adjusting, completely enclosed and sealed.
- Foot operated brake pedals can be interlocked for roading.
- Parking/secondary brakes are independent of the service brake system. Parking brake is mechanically applied through an adjustable hand lever located on the right console.

# 420E/420E IT Specifications

## Machine Dimensions

	Single Tilt Loader							
	General Purpose (0.96 m <sup>3</sup> /1.25 yd <sup>3</sup> )		General Purpose (1.00 m <sup>3</sup> /1.31 yd <sup>3</sup> )		General Purpose (1.07 m <sup>3</sup> /1.40 yd <sup>3</sup> )		General Purpose (1.15 m <sup>3</sup> /1.50 yd <sup>3</sup> )	
	mm	ft/in	mm	ft/in	mm	ft/in	mm	ft/in
(1) Overall length (loader on ground)	7290	23 ft 11 in	7245	23 ft 9 in	7307	24 ft 0 in	7232	23 ft 9 in
Overall transport length	7343	24 ft 1 in	7311	24 ft 0 in	7378	24 ft 2 in	7227	23 ft 9 in
(2) Overall transport height (standard stick)	3577	11 ft 9 in	3577	11 ft 9 in	3577	11 ft 9 in	3577	11 ft 9 in
Overall transport height (extendible stick)	3631	11 ft 11 in	3631	11 ft 11 in	3631	11 ft 11 in	3631	11 ft 11 in
Overall Width	2438	8 ft 0 in	2438	8 ft 0 in	2438	8 ft 0 in	2322	7 ft 7 in
(3) Height to top of cab/canopy	2819	9 ft 3 in	2819	9 ft 3 in	2819	9 ft 3 in	2819	9 ft 3 in
(4) Height to top of exhaust stack	2754	9 ft 0 in	2754	9 ft 0 in	2754	9 ft 0 in	2754	9 ft 0 in
Height to loader hinge pin (transport)	365	1 ft 2 in	365	1 ft 2 in	407	1 ft 4 in	405	1 ft 4 in
Ground clearance (minimum)	320	1 ft 1 in	320	1 ft 1 in	320	1 ft 1 in	320	1 ft 1 in
(5) Rear axle centerline to front grill	2704	8 ft 10 in	2704	8 ft 10 in	2704	8 ft 10 in	2705	8 ft 10 in
Front wheel tread gauge	1880	6 ft 2 in	1880	6 ft 2 in	1880	6 ft 2 in	1826	6 ft 0 in
Rear wheel tread gauge	1727	5 ft 8 in	1727	5 ft 8 in	1727	5 ft 8 in	1707	5 ft 7 in
(6) Wheelbase 2WD/4WD	2200	7 ft 3 in	2200	7 ft 3 in	2200	7 ft 3 in	2200	7 ft 3 in

Dimensions and performance specifications shown are for machines equipped with 12.5/80-18 SGL front tires, 19.5L-24 IT525 rear tires, ROPS canopy, standard stick with 610 mm (24 inch) standard duty bucket, and 0.96 m<sup>3</sup> (1.25 yd<sup>3</sup>) loader bucket and standard equipment unless otherwise specified.



## Machine Dimensions

### Single Tilt Loader

	Multi Purpose (0.96 m <sup>3</sup> /1.25 yd <sup>3</sup> )		Multi Purpose (1.03 m <sup>3</sup> /1.35 yd <sup>3</sup> )		Multi Purpose with Forks (1.00 m <sup>3</sup> /1.31 yd <sup>3</sup> )		Multi Purpose with Forks (1.07 m <sup>3</sup> /1.40 yd <sup>3</sup> )	
	mm	ft/in	mm	ft/in	mm	ft/in	mm	ft/in
(1) Overall length (loader on ground)	7130	23 ft 5 in	7130	23 ft 5 in	7130	23 ft 5 in	7130	23 ft 5 in
Overall transport length	7155	23 ft 6 in	7155	23 ft 6 in	7155	23 ft 6 in	7155	23 ft 6 in
(2) Overall transport height (standard stick)	3577	11 ft 9 in	3577	11 ft 9 in	3577	11 ft 9 in	3577	11 ft 9 in
Overall transport height (extendible stick)	3631	11 ft 11 in	3631	11 ft 11 in	3631	11 ft 11 in	3631	11 ft 11 in
Overall Width	2322	7 ft 7 in	2322	7 ft 7 in	2322	7 ft 7 in	2322	7 ft 7 in
(3) Height to top of cab/canopy	2819	9 ft 3 in	2819	9 ft 3 in	2819	9 ft 3 in	2819	9 ft 3 in
(4) Height to top of exhaust stack	2754	9 ft 0 in	2754	9 ft 0 in	2754	9 ft 0 in	2754	9 ft 0 in
Height to loader hinge pin (transport)	412	1 ft 4 in	412	1 ft 4 in	412	1 ft 4 in	412	1 ft 4 in
Ground clearance (minimum)	320	1 ft 1 in	320	1 ft 1 in	320	1 ft 1 in	320	1 ft 1 in
(5) Rear axle centerline to front grill	2705	8 ft 10 in	2705	8 ft 10 in	2705	8 ft 10 in	2705	8 ft 10 in
Front wheel tread gauge	1826	6 ft 0 in	1826	6 ft 0 in	1826	6 ft 0 in	1826	6 ft 0 in
Rear wheel tread gauge	1707	5 ft 7 in	1707	5 ft 7 in	1707	5 ft 7 in	1707	5 ft 7 in
(6) Wheelbase 2WD/4WD	2200	7 ft 3 in	2200	7 ft 3 in	2200	7 ft 3 in	2200	7 ft 3 in

### IT Loader with Quick Coupler

	General Purpose (0.96 m <sup>3</sup> /1.25 yd <sup>3</sup> )		General Purpose (1.00 m <sup>3</sup> /1.31 yd <sup>3</sup> )		General Purpose (1.15 m <sup>3</sup> /1.50 yd <sup>3</sup> )	
	mm	ft/in	mm	ft/in	mm	ft/in
(1) Overall length (loader on ground)	7399	24 ft 3 in	7354	24 ft 2 in	7321	24 ft 0 in
Overall transport length	7434	25 ft 5 in	7402	24 ft 3 in	7275	23 ft 10 in
(2) Overall transport height (standard stick)	3577	11 ft 9 in	3577	11 ft 9 in	3577	11 ft 9 in
Overall transport height (extendible stick)	3631	11 ft 11 in	3631	11 ft 11 in	3631	11 ft 11 in
Overall Width	2438	8 ft 0 in	2438	8 ft 0 in	2322	7 ft 7 in
(3) Height to top of cab/canopy	2819	9 ft 3 in	2819	9 ft 3 in	2819	9 ft 3 in
(4) Height to top of exhaust stack	2754	9 ft 0 in	2754	9 ft 0 in	2754	9 ft 0 in
Height to loader hinge pin (transport)	382	1 ft 3 in	382	1 ft 3 in	364	1 ft 2 in
Ground clearance (minimum)	320	1 ft 1 in	320	1 ft 1 in	320	1 ft 1 in
(5) Rear axle centerline to front grill	2704	8 ft 10 in	2704	8 ft 10 in	2705	8 ft 10 in
Front wheel tread gauge	1880	6 ft 2 in	1880	6 ft 2 in	1826	6 ft 0 in
Rear wheel tread gauge	1727	5 ft 8 in	1727	5 ft 8 in	1707	5 ft 7 in
(6) Wheelbase 2WD/4WD	2200	7 ft 3 in	2200	7 ft 3 in	2200	7 ft 3 in

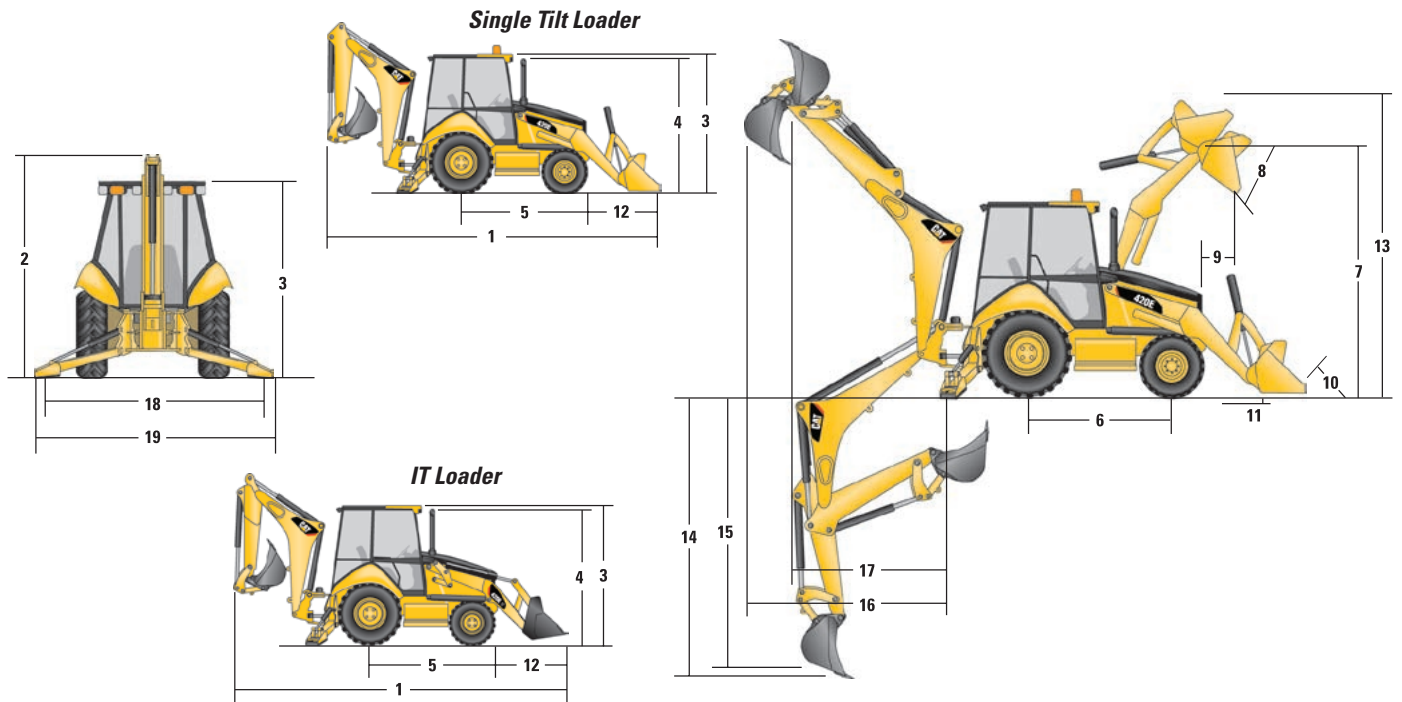
Dimensions and performance specifications shown are for machines equipped with 12.5/80-18 SGL front tires, 19.5L-24 IT525 rear tires, ROPS canopy, standard stick with 610 mm (24 inch) standard duty bucket, and 0.96 m<sup>3</sup> (1.25 yd<sup>3</sup>) loader bucket and standard equipment unless otherwise specified.

# 420E/420E IT Specifications

## Machine Dimensions

	IT Loader with Quick Coupler			
	Multi Purpose (0.96 m <sup>3</sup> /1.25 yd <sup>3</sup> )		Multi Purpose (1.03 m <sup>3</sup> /1.35 yd <sup>3</sup> )	
	mm	ft/in	mm	ft/in
(1) Overall length (loader on ground)	7231	23 ft 9 in	7231	23 ft 9 in
Overall transport length	7208	23 ft 8 in	7208	23 ft 8 in
(2) Overall transport height (standard stick)	3577	11 ft 9 in	3577	11 ft 9 in
Overall transport height (extendible stick)	3631	11 ft 11 in	3631	11 ft 11 in
Overall Width	2322	7 ft 7 in	2322	7 ft 7 in
(3) Height to top of cab/canopy	2819	9 ft 3 in	2819	9 ft 3 in
(4) Height to top of exhaust stack	2754	9 ft 0 in	2754	9 ft 0 in
Height to loader hinge pin (transport)	359	1 ft 2 in	359	1 ft 2 in
Ground clearance (minimum)	320	1 ft 1 in	320	1 ft 1 in
(5) Rear axle centerline to front grill	2705	8 ft 10 in	2705	8 ft 10 in
Front wheel tread gauge	1826	6 ft 0 in	1826	6 ft 0 in
Rear wheel tread gauge	1707	5 ft 7 in	1707	5 ft 7 in
(6) Wheelbase 2WD/4WD	2200	7 ft 3 in	2200	7 ft 3 in

Dimensions and performance specifications shown are for machines equipped with 12.5/80-18 SGL front tires, 19.5L-24 IT525 rear tires, ROPS canopy, standard stick with 610 mm (24 inch) standard duty bucket, and 0.96 m<sup>3</sup> (1.25 yd<sup>3</sup>) loader bucket and standard equipment unless otherwise specified.





## Loader Bucket Dimensions and Performance

	Single Tilt Loader							
	General Purpose (0.96 m <sup>3</sup> /1.25 yd <sup>3</sup> )		General Purpose (1.00 m <sup>3</sup> /1.31 yd <sup>3</sup> )		General Purpose (1.07 m <sup>3</sup> /1.40 yd <sup>3</sup> )		General Purpose (1.15 m <sup>3</sup> /1.50 yd <sup>3</sup> )	
Capacity (SAE rated)	0.96 m <sup>3</sup>	1.25 yd <sup>3</sup>	1.00 m <sup>3</sup>	1.31 yd <sup>3</sup>	1.07 m <sup>3</sup>	1.40 yd <sup>3</sup>	1.15 m <sup>3</sup>	1.50 yd <sup>3</sup>
Overall bucket width	2262 mm	7 ft 5 in	2406 mm	7 ft 11 in	2262 mm	7 ft 5 in	2406 mm	7 ft 11 in
Lift capacity at maximum height	2929 kg	6,457 lb	2937 kg	6,475 lb	2868 kg	6,323 lb	2733 kg	6,025 lb
Breakout force	45.6 kN	10,242 lb	46.3 kN	10,401 lb	45.1 kN	10,130 lb	43.6 kN	9,814 lb
(7) Maximum hinge pin height	3296 mm	10 ft 10 in	3296 mm	10 ft 10 in	3296 mm	10 ft 10 in	3294 mm	10 ft 10 in
(8) Dump angle at full height	44°		44°		44°		46°	
Dump height at maximum angle	2573 mm	8 ft 5 in	2604 mm	8 ft 7 in	2550 mm	8 ft 4 in	2529 mm	8 ft 4 in
(9) Dump reach at maximum angle	853 mm	2 ft 10 in	821 mm	2 ft 8 in	819 mm	2 ft 8 in	752 mm	2 ft 6 in
(10) Maximum bucket rollback at ground level	39°		39°		40°		40°	
(11) Digging depth	106 mm	4 in	106 mm	4 in	146 mm	6 in	146 mm	6 in
Maximum grading angle	107°		108°		108°		111°	
Width of dozer cutting edge	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(12) Grill to bucket cutting edge, carry position	1516 mm	5 ft 0 in	1484 mm	4 ft 10 in	1551 mm	5 ft 1 in	1544 mm	5 ft 1 in
(13) Maximum operating height	4196 mm	13 ft 9 in	4193 mm	13 ft 9 in	4237 mm	13 ft 11 in	4216 mm	13 ft 11 in
Jaw opening maximum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bucket jaw clamping force	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Weight (does not include teeth or forks)	438 kg	967 lb	449 kg	989 lb	459 kg	1,012 lb	493.37 kg	1,088 lb

	Single Tilt Loader							
	Multi Purpose (0.96 m <sup>3</sup> /1.25 yd <sup>3</sup> )		Multi Purpose (1.03 m <sup>3</sup> /1.35 yd <sup>3</sup> )		Multi Purpose with Forks (1.00 m <sup>3</sup> /1.31 yd <sup>3</sup> )		Multi Purpose with Forks (1.07 m <sup>3</sup> /1.40 yd <sup>3</sup> )	
Capacity (SAE rated)	0.96 m <sup>3</sup>	1.26 yd <sup>3</sup>	1.03 m <sup>3</sup>	1.35 yd <sup>3</sup>	1.00 m <sup>3</sup>	1.31 yd <sup>3</sup>	1.07 m <sup>3</sup>	1.40 yd <sup>3</sup>
Overall bucket width	2279 mm	7 ft 6 in	2425 mm	7 ft 11 in	2279 mm	7 ft 6 in	2425 mm	7 ft 11 in
Lift capacity at maximum height	2616 kg	5,768 lb	2587 kg	5,704 lb	2500 kg	5,512 lb	2471 kg	5,448 lb
Breakout force	46.9 kN	10,547 lb	46.7 kN	10,514 lb	46.0 kN	10,341 lb	45.8 kN	10,308 lb
(7) Maximum hinge pin height	3294 mm	10 ft 10 in	3294 mm	10 ft 10 in	3294 mm	10 ft 10 in	3294 mm	10 ft 10 in
(8) Dump angle at full height	46°		46°		46°		46°	
Dump height at maximum angle	2605 mm	8 ft 7 in	2605 mm	8 ft 7 in	2605 mm	8 ft 7 in	2605 mm	8 ft 7 in
(9) Dump reach at maximum angle	695 mm	2 ft 3 in	695 mm	2 ft 3 in	695 mm	2 ft 3 in	695 mm	2 ft 3 in
(10) Maximum bucket rollback at ground level	40°		40°		40°		40°	
(11) Digging depth	133 mm	5 in	133 mm	5 in	133 mm	5 in	133 mm	5 in
Maximum grading angle	113°		113°		113°		113°	
Width of dozer cutting edge	2262 mm	7 ft 5 in	2406 mm	7 ft 11 in	2262 mm	7 ft 5 in	2406 mm	7 ft 11 in
(12) Grill to bucket cutting edge, carry position	1473 mm	4 ft 10 in	1473 mm	4 ft 10 in	1473 mm	4 ft 10 in	1473 mm	4 ft 10 in
(13) Maximum operating height	4224 mm	13 ft 10 in	4224 mm	13 ft 10 in	4698 mm	15 ft 5 in	4698 mm	15 ft 5 in
Jaw opening maximum	790 mm	2 ft 7 in	790 mm	2 ft 7 in	790 mm	2 ft 7 in	790 mm	2 ft 7 in
Bucket jaw clamping force	55 700 N	12,521 lb	55 700 N	12,521 lb	55 700 N	12,521 lb	55 700 N	12,521 lb
Weight (does not include teeth or forks)	744.69 kg	1,642 lb	773.53 kg	1,705 lb	914.64 kg	2,016 lb	936.27 kg	2,064 lb

Dimensions and performance specifications shown are for machines equipped with 12.5/80-18 SGL front tires, 19.5L-24 IT525 rear tires, ROPS canopy, standard stick with 610 mm (24 inch) standard duty bucket, and 0.96 m<sup>3</sup> (1.25 yd<sup>3</sup>) loader bucket and standard equipment unless otherwise specified.

## Loader Bucket Dimensions and Performance

	IT Loader with Quick Coupler					
	General Purpose (0.96 m <sup>3</sup> /1.25 yd <sup>3</sup> )		General Purpose (1.00 m <sup>3</sup> /1.31 yd <sup>3</sup> )		General Purpose (1.15 m <sup>3</sup> /1.50 yd <sup>3</sup> )	
Capacity (SAE rated)	0.96 m <sup>3</sup>	1.25 yd <sup>3</sup>	1.00 m <sup>3</sup>	1.31 yd <sup>3</sup>	1.15 m <sup>3</sup>	1.50 yd <sup>3</sup>
Overall bucket width	2262 mm	7 ft 5 in	2406 mm	7 ft 11 in	2406 mm	7 ft 11 in
Lift capacity at maximum height	3164 kg	6,975 lb	3162 kg	6,971 lb	3023 kg	6,664 lb
Breakout force	47.1 kN	10,593 lb	47.5 kN	10,672 lb	45.5 kN	10,235 lb
(7) Maximum hinge pin height	3329 mm	10 ft 11 in	3329 mm	10 ft 11 in	3316 mm	10 ft 11 in
(8) Dump angle at full height	45°		45°		45°	
Dump height at maximum angle	2507 mm	8 ft 2 in	2539 mm	8 ft 4 in	2493 mm	8 ft 2 in
(9) Dump reach at maximum angle	831 mm	2 ft 9 in	799 mm	2 ft 7 in	801 mm	2 ft 8 in
(10) Maximum bucket rollback at ground level	40°		40°		40°	
(11) Digging depth	147 mm	6 in	147 mm	6 in	153 mm	6 in
Maximum grading angle	108°		110°		108°	
Width of dozer cutting edge	N/A	N/A	N/A	N/A	N/A	N/A
(12) Grill to bucket cutting edge, carry position	1607 mm	5 ft 3 in	1575 mm	5 ft 2 in	1593 mm	5 ft 3 in
(13) Maximum operating height	4260 mm	14 ft 0 in	4256 mm	14 ft 0 in	4303 mm	14 ft 1 in
Jaw opening maximum	N/A	N/A	N/A	N/A	N/A	N/A
Bucket jaw clamping force	N/A	N/A	N/A	N/A	N/A	N/A
Weight (does not include teeth or forks)	434 kg	957 lb	444 kg	978 lb	481.01 kg	1,060 lb

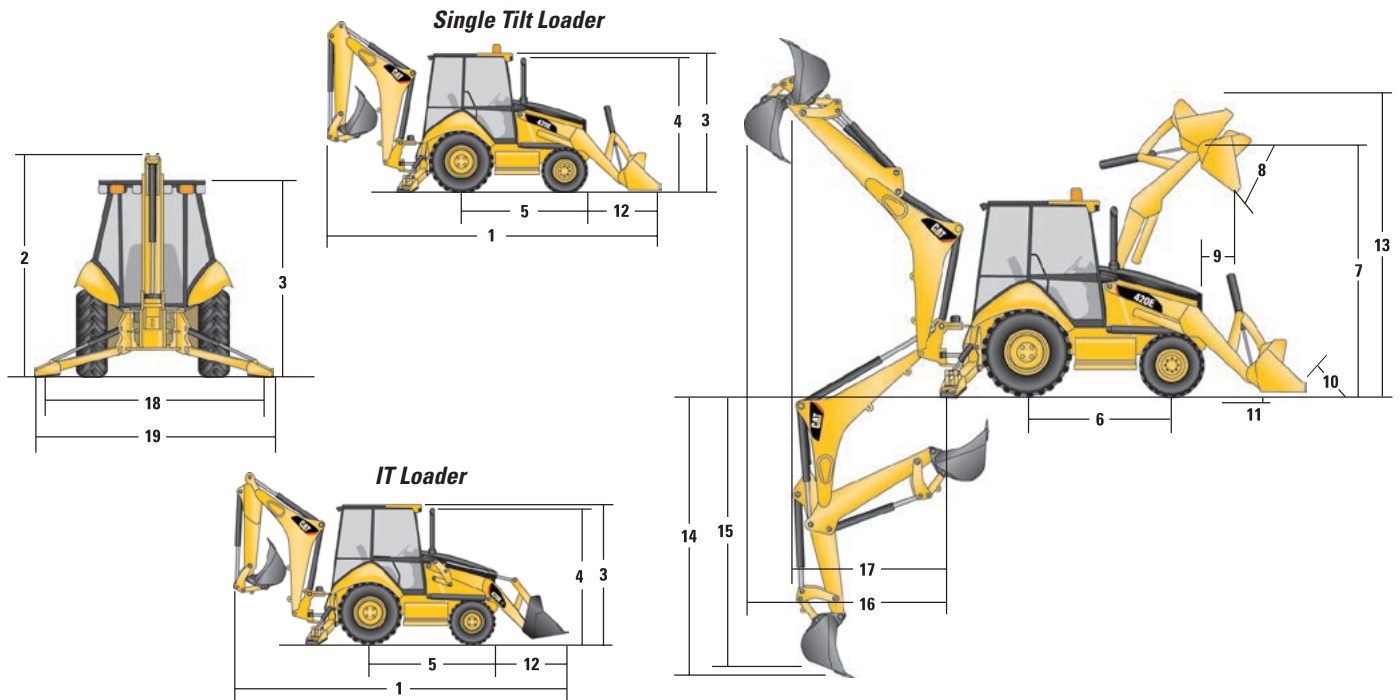
	IT Loader with Quick Coupler			
	Multi Purpose (0.96 m <sup>3</sup> /1.25 yd <sup>3</sup> )		Multi Purpose (1.03 m <sup>3</sup> /1.35 yd <sup>3</sup> )	
Capacity (SAE rated)	0.96 m <sup>3</sup>	1.26 yd <sup>3</sup>	1.03 m <sup>3</sup>	1.35 yd <sup>3</sup>
Overall bucket width	2279 mm	7 ft 6 in	2425 mm	7 ft 11 in
Lift capacity at maximum height	2800 kg	6,174 lb	2771 kg	6,110 lb
Breakout force	44.5 kN	10,020 lb	44.4 kN	9,983 lb
(7) Maximum hinge pin height	3316 mm	10 ft 11 in	4306 mm	14 ft 2 in
(8) Dump angle at full height	45°		45°	
Dump height at maximum angle	2559 mm	8 ft 5 in	2559 mm	8 ft 5 in
(9) Dump reach at maximum angle	748 mm	2 ft 5 in	748 mm	2 ft 5 in
(10) Maximum bucket rollback at ground level	40°		40°	
(11) Digging depth	144 mm	6 in	144 mm	6 in
Maximum grading angle	111°		111°	
Width of dozer cutting edge	2262 mm	7 ft 5 in	2406 mm	7 ft 11 in
(12) Grill to bucket cutting edge, carry position	1526 mm	5 ft 0 in	1526 mm	5 ft 0 in
(13) Maximum operating height	4306 mm	14 ft 2 in	4306 mm	14 ft 2 in
Jaw opening maximum	790 mm	2 ft 7 in	790 mm	2 ft 7 in
Bucket jaw clamping force	55 700 N	12,521 lb	55 700 N	12,521 lb
Weight (does not include teeth or forks)	724.09 kg	1,596 lb	752.93 kg	1,660 lb

Dimensions and performance specifications shown are for machines equipped with 12.5/80-18 SGL front tires, 19.5L-24 IT525 rear tires, ROPS canopy, standard stick with 610 mm (24 inch) standard duty bucket, and 0.96 m<sup>3</sup> (1.25 yd<sup>3</sup>) loader bucket and standard equipment unless otherwise specified.

## Backhoe Dimensions and Performance

	Standard Stick		E-Stick Retracted		E-Stick Extended	
(14) Digging depth, SAE (max.)	4360 mm	14 ft 4 in	4402 mm	14 ft 5 in	5456 mm	17 ft 11 in
(15) Digging depth, 610 mm (2 ft) flat bottom	4321 mm	14 ft 2 in	4363 mm	14 ft 4 in	5420 mm	17 ft 9 in
Reach from rear axle centerline at ground line	6721 mm	22 ft 1 in	6760 mm	22 ft 2 in	7769 mm	25 ft 6 in
(16) Reach from swing pivot at ground line	5618 mm	18 ft 5 in	5657 mm	18 ft 7 in	6666 mm	21 ft 10 in
Maximum operating height	5523 mm	18 ft 1 in	5555 mm	18 ft 3 in	6302 mm	20 ft 8 in
Loading height	3636 mm	11 ft 11 in	3577 mm	11 ft 9 in	4145 mm	13 ft 7 in
(17) Loading reach	1768 mm	5 ft 10 in	1868 mm	6 ft 2 in	2771 mm	9 ft 1 in
Swing arc	180°		180°		180°	
Bucket rotation	205°		204°		204°	
(18) Stabilizer spread, operating position (center)	3310 mm	10 ft 10 in	3310 mm	10 ft 10 in	3310 mm	10 ft 10 in
(19) Stabilizer spread, operating position (outside)	3770 mm	12 ft 4 in	3770 mm	12 ft 4 in	3770 mm	12 ft 4 in
Stabilizer spread, transport position	2322 mm	7 ft 7 in	2322 mm	7 ft 7 in	2322 mm	7 ft 7 in
Bucket dig force	61.7 kN	13,875 lb	60.9 kN	13,863 lb	60.9 kN	13,863 lb
Stick dig force	43.0 kN	9,662 lb	42.8 kN	9,616 lb	31.2 kN	7,023 lb

Dimensions and performance specifications shown are for machines equipped with 12.5/80-18 SGL front tires, 19.5L-24 IT525 rear tires, ROPS canopy, standard stick with 610 mm (24 inch) standard duty bucket, and 0.96 m<sup>3</sup> (1.25 yd<sup>3</sup>) loader bucket and standard equipment unless otherwise specified.



# 420E/420E IT Specifications

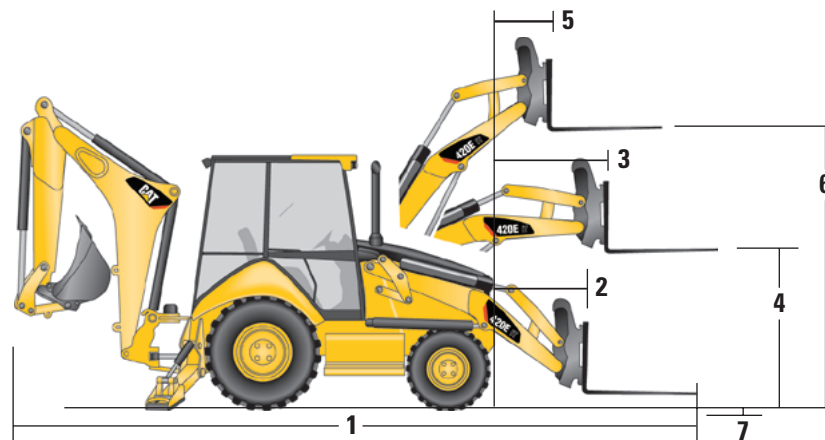
## Dimensions with Forks/Material Handling Arm

Fork Tine Length	1070 mm/3 ft 6 in		1220 mm/4 ft 0 in		1370 mm/4 ft 10 in	
Operating load (SAE J1197)	2291 kg*	5,051 lb*	2215 kg*	4,883 lb*	2019 kg	4,451 lb
SAE load center	535 mm	1 ft 9 in	610 mm	2 ft 0 in	685 mm	2 ft 3 in
Operating load (CEN 474-4)	2428 kg	5,353 lb	2406 kg	5,304 lb	2382 kg	5,251 lb
CEN load center	500 mm	1 ft 8 in	500 mm	1 ft 8 in	500 mm	1 ft 8 in
(1) Overall length (forks on ground)	7717 mm	25 ft 4 in	7867 mm	25 ft 10 in	8017 mm	26 ft 4 in
(2) Reach at ground (from grill to heel of fork)†	985 mm	3 ft 3 in	985 mm	3 ft 3 in	985 mm	3 ft 2 in
(3) Maximum reach (from grill to heel of fork)†	1427 mm	4 ft 8 in	1427 mm	4 ft 8 in	1427 mm	4 ft 8 in
(4) Fork height at maximum reach	1458 mm	4 ft 9 in	1458 mm	4 ft 9 in	1458 mm	4 ft 9 in
(5) Reach at maximum height (from grill to heel of fork)†	665 mm	2 ft 2 in	665 mm	2 ft 2 in	665 mm	2 ft 2 in
(6) Maximum fork height	3238 mm	10 ft 7 in	3238 mm	10 ft 7 in	3238 mm	10 ft 7 in
(7) Maximum fork depth (below ground level)	20 mm	1 in	20 mm	1 in	20 mm	1 in

\*Tip limited.

†Measured from nose of machine.

Dimensions and performance specifications shown are for machines equipped with 12.5/80-18 SGL front tires, 19.5L-24 IT525 rear tires, ROPS canopy, standard stick with 610 mm (24 inch) standard duty bucket, and 0.96 m<sup>3</sup> (1.25 yd<sup>3</sup>) loader bucket and standard equipment unless otherwise specified.



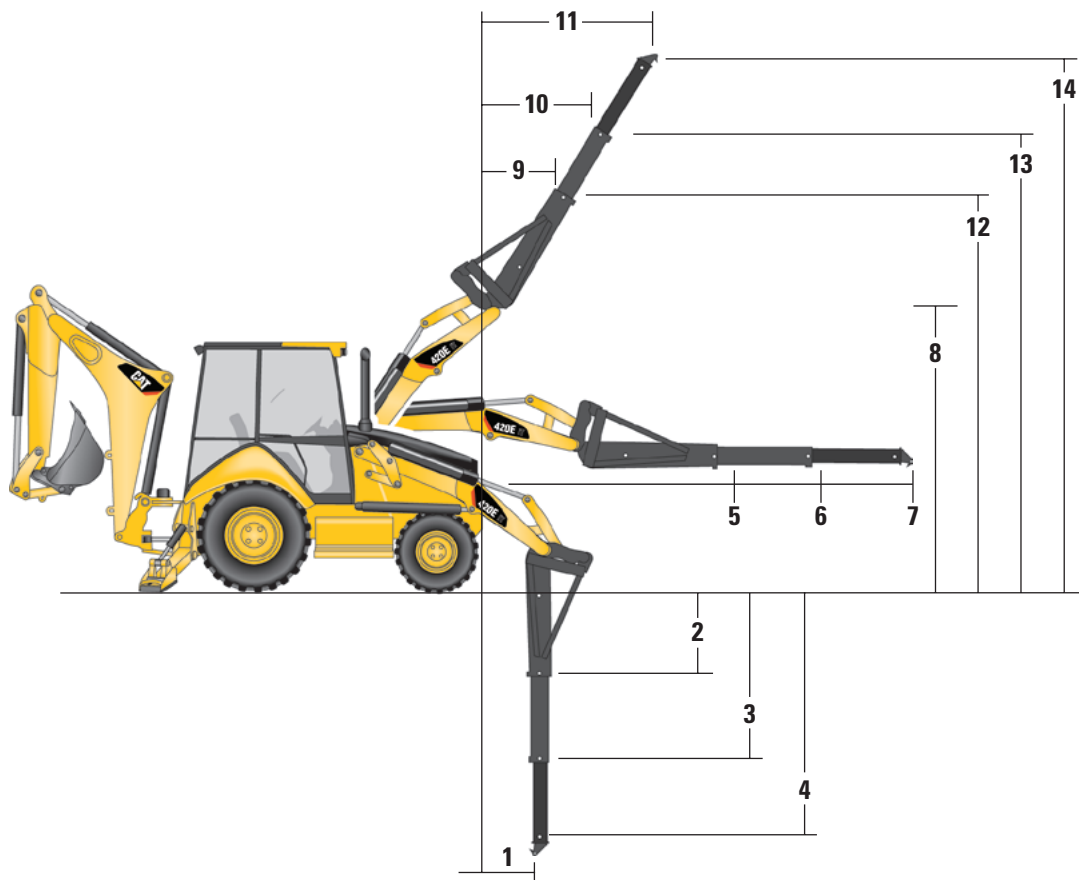
## Dimensions/Material Handling Arm

Material Handling Arm Position	Retracted		Mid-Position		Extended	
Operating load (SAE J1197 and CEN 474-4)*†	933 kg	2,057 lb	590 kg	1,301 lb	431 kg	950 lb
Overall length, maximum	8809 mm	28 ft 11 in	9807 mm	32 ft 2 in	10 807 mm	35 ft 5 in
(1) Reach at maximum depth (from machine nose)	585 mm	1 ft 11 in	585 mm	1 ft 11 in	585 mm	1 ft 11 in
(2, 3, 4) Maximum depth	1998 mm	6 ft 7 in	2996 mm	9 ft 10 in	3996 mm	13 ft 1 in
(5, 6, 7) Maximum reach (from machine nose)†	3147 mm	10 ft 4 in	4145 mm	13 ft 7 in	5145 mm	16 ft 11 in
(8) Height at maximum reach	1549 mm	5 ft 1 in	1549 mm	5 ft 1 in	1549 mm	5 ft 1 in
(9, 10, 11) Reach at maximum height (from machine nose)†	1462 mm	4 ft 10 in	2000 mm	6 ft 7 in	2541 mm	8 ft 4 in
(12, 13, 14) Maximum height	5051 mm	16 ft 7 in	5892 mm	19 ft 4 in	6733 mm	22 ft 1 in

\*Hydraulically limited.

†Measured from nose of machine.

Dimensions and performance specifications shown are for machines equipped with 12.5/80-18 SGL front tires, 19.5L-24 IT525 rear tires, ROPS canopy, standard stick with 610 mm (24 inch) standard duty bucket, and 0.96 m<sup>3</sup> (1.25 yd<sup>3</sup>) loader bucket and standard equipment unless otherwise specified.

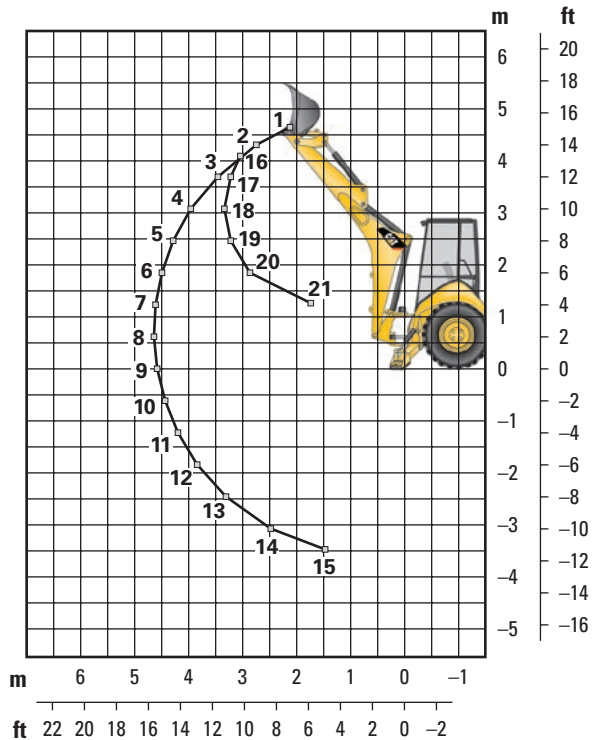


# 420E/420E IT Specifications

## Backhoe Lift Capacity

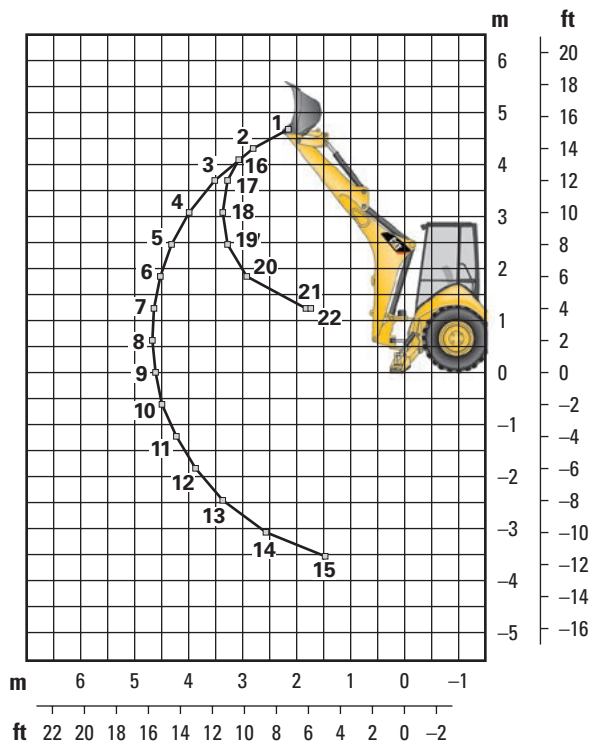
### Cat 420E/420E IT Standard Stick

Boom Lifting	kg	lb
1	1585	3,495
2	1733	3,821
3	1759	3,879
4	1718	3,787
5	1659	3,657
6	1597	3,520
7	1536	3,385
8	1478	3,258
9	1424	3,139
10	1375	3,031
11	1331	2,935
12	1295	2,854
13	1270	2,800
14	1280	2,822
15	1439	3,173
Stick Lifting	kg	lb
16	1818	4,007
17	2537	5,592
18	2472	5,450
19	2563	5,649
20	2975	6,559
21	5920	13,050



### Cat 420E/420E IT Extendible Stick – Retracted

Boom Lifting	kg	lb
1	1405	3,097
2	1543	3,402
3	1560	3,439
4	1516	3,342
5	1456	3,210
6	1393	3,071
7	1331	2,935
8	1273	2,805
9	1218	2,684
10	1167	2,572
11	1121	2,471
12	1081	2,383
13	1051	2,316
14	1046	2,306
15	1177	2,595
Stick Lifting	kg	lb
16	1664	3,668
17	2366	5,217
18	2273	5,012
19	2355	5,192
20	2728	6,015
21	5294	11,671
22	5716	12,602

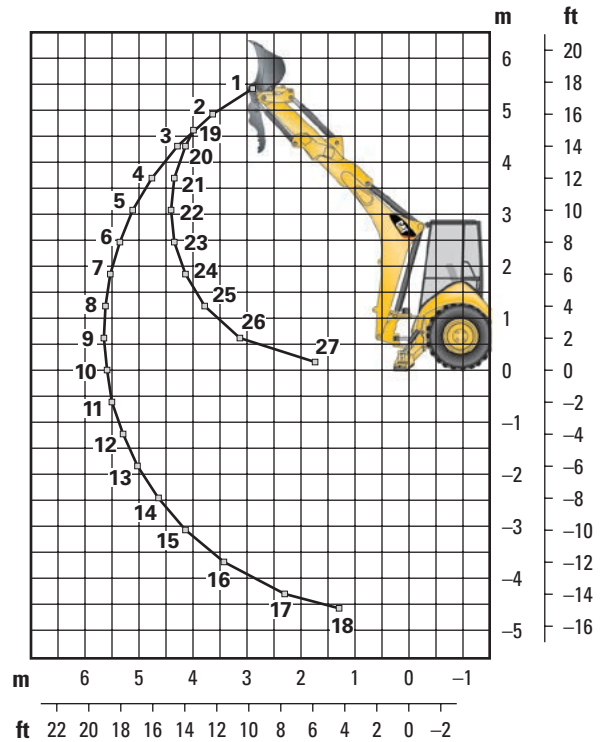


Lift Capacities are over-end values. Machine equipped with 4WD, OROPS, 0.96 m<sup>3</sup> (1.25 yd<sup>3</sup>) general purpose bucket, and 116 kg (255 lb) counterweight. Extendible stick includes 488 kg (1,075 lb) counterweight.

## Backhoe Lift Capacity

### Cat 420E/420E IT Extendible Stick – Extended

Boom Lifting		
	kg	lb
1	816	1,800
2	987	2,176
3	1055	2,326
4	1069	2,358
5	1061	2,340
6	1041	2,294
7	1020	2,248
8	994	2,192
9	968	2,135
10	943	2,080
11	920	2,029
12	900	1,983
13	883	1,946
14	872	1,922
15	872	1,922
16	896	1,976
17	1030	2,272
18	1555	3,429
Stick Lifting		
	kg	lb
19	859	1,893
20	1104	2,434
21	1443	3,181
22	1547	3,410
23	1572	3,466
24	1673	3,687
25	1899	4,185
26	2467	5,438
27	5685	12,534



Lift Capacities are over-end values. Machine equipped with 4WD, OROPS, 0.96 m<sup>3</sup> (1.25 yd<sup>3</sup>) general purpose bucket, and 116 kg (255 lb) counterweight. Extendible stick includes 488 kg (1,075 lb) counterweight.

# 420E/420E IT Specifications

## Counterweights

Minimum Counterweight Recommendations

### Standard Stick

Loader Bucket	Power Train	Single-Tilt		IT Loader w/QC	
		kg	lb	kg	lb
GP	2WD/4WD	231	510	no counterweight	
MP	2WD/4WD	no counterweight		no counterweight	
Forks	2WD/4WD	N/A	N/A	no counterweight	
Material Handling Arm	2WD/4WD	N/A	N/A	no counterweight	

### Extendible Stick

Loader Bucket	Power Train	Single-Tilt		IT Loader w/QC	
		kg	lb	kg	lb
GP	2WD/4WD	488	1,075	231	510
MP	2WD/4WD	231	510	no counterweight	
Forks	2WD/4WD	N/A	N/A	no counterweight	
Material Handling Arm	2WD	N/A	N/A	116	255
Material Handling Arm	4WD	N/A	N/A	no counterweight	

## Backhoe Buckets

With weld on adapters and pin-on teeth

### Standard Duty

Width		Rated Capacity		Weight		No. of Teeth
mm	in	L	ft <sup>3</sup>	kg	lb	
305	12	78	2.8	97	213	3
457	18	118	4.2	115	253	4
610	24	175	6.2	132	290	5
762	30	233	8.2	147	323	5
914	36	292	10.3	165	363	6

### Heavy Duty

Width		Rated Capacity		Weight		No. of Teeth
mm	in	L	ft <sup>3</sup>	kg	lb	
305	12	78	2.8	105	231	3
406	16	105	3.7	128	282	3
457	18	118	4.2	129	284	4
610	24	175	6.2	151	332	5
762	30	233	8.2	167	367	5
914	36	292	10.3	189	416	6

### Soil Excavation

Width		Rated Capacity		Weight		No. of Teeth
mm	in	L	ft <sup>3</sup>	kg	lb	
457	18	181	6.4	153	336	4
610	24	241	8.5	179	395	5
762	30	320	11.3	197	434	5
914	36	380	13.4	223	491	6

### Heavy Duty Rock

Width		Rated Capacity		Weight		No. of Teeth
mm	in	L	ft <sup>3</sup>	kg	lb	
305	12	70	2.5	120	265	3
457	18	127	4.5	150	331	4
610	24	198	7.0	175	386	5
762	30	255	9.5	195	430	5
914	36	311	11.5	210	463	6

### Coral

Width		Rated Capacity		Weight		No. of Teeth
mm	in	L	ft <sup>3</sup>	kg	lb	
305	12	60	2.1	134	295	4
457	18	100	3.5	155	341	6
610	24	140	4.9	182	402	8
762	30	190	6.7	210	463	10



Standard equipment may vary. Consult your Caterpillar dealer for details

Air cleaner	Filters, spin-on: fuel, engine oil, transmission oil, water separator, hydraulic fluid	Open circuit breather
Alarm, back-up	Flashing hazard/signal lights	Pattern changer, in cab
Automatic Engine Speed Control (AESCS)	Floor mat	Power receptacle, 12V, internal and external
Backhoe position footrests	Gauges: coolant temperature, fuel level, tachometer, hour meter, torque converter oil temperature	Power steering, hydrostatic
Battery, maintenance-free, 880 CCA	Ground level fuel fill	Radio installation kit
Battery disconnect switch	High ambient cooling package	Rubber impact strips on radiator guard
Boom transport lock	Hydraulic hose, XT™-3 ES	Seat belt, retractable (51 mm/2 in)
Brace, lift cylinder	Hydraulic oil cooler	Service harness
Brake, secondary parking	Indicators: air cleaner service, water separator service, brake on, engine coolant, hydraulic oil level sight gauge, oil pressure	Stabilizer shoes, grouser type
Brakes, hydraulically boosted, oil disc, dual pedals, interlocking	Instrument panel lights	Seat, air suspension, fabric or vinyl cover, with armrest
Bucket level indicator	Joystick controls: pilot operated, excavator-style with pattern changer	Stabilizer controls, pilot operated
Canopy, ROPS/FOPS	Key start/stop system	Starting system, glow plugs
Cat cushion swing system	Lights, working (4 front, 4 rear)	Storage compartment, internal
Coat hook	Loader, self-leveling, return-to-dig and transmission disconnect switch	Stop and tail lights
Coolant/Antifreeze, extended life	Lunch box holder	Swing transport lock
Counterweight, bumper	Mirror, rear view	Tilt steering wheel
Dome light (cab only)	One-touch low idle	Tires, see page 13
Differential lock		Toolbox, external, lockable
Engine, Cat® C4.4 ACERT® DIT (Direct Injection Turbocharged)		Torque converter
Engine enclosure		Throttles, hand and foot
Face seals, O-ring		Transmission, four speed, syncromesh
Fan, suction and guard		Transmission neutralizer switch
Fast reversing shuttle, all gears		Transport tie-downs
Fenders, rear		Warning horn, electric

# 420E/420E IT Optional Equipment

Optional equipment may vary. Consult your Caterpillar dealer for details

	kg	lb		kg	lb		kg	lb
AccuGrade™ Site Reference System for Backhoe Loaders	19	42	Axle, front			Hydraulic lines		
AccuGrade Laser Reference System for Backhoe Loaders	48	105	Four wheel drive with driveshaft guard	155	341	Combo, Std Stick	27	59
Attachments, backhoe			Battery, additional, 880 CCA	25	55	Combo, E-Stick	27	59
Mechanical Quick Coupler			Cab, deluxe	225	495	One-way, E-Stick	22	48
D and E-Series buckets	75	165	Cab, deluxe with A/C	263	579	Loader, IT with hydraulic QC and pilot loader control	338	744
C-Series buckets	75	165	Cab, standard	225	495	Machine Security System	1	2
D, E and Deere buckets	75	165	Canopy Plus, ROPS	15	33	Product Link	4	9
D, E and Case buckets	80	176	Coolant, additional protection, -50° C (-58° F)	0	0	Ride Control	22	48
Hydraulic thumb	139-157	306-345	Counterweights			Rotating beacon		
Attachments, front loader			116 kg (255 lb)	116	255	Magnetic mount	5	11
General purpose buckets			231 kg (510 lb)	231	510	Seat belt, 75 mm (3 in)	0	0
0.96 m <sup>3</sup> (1.25 yd <sup>3</sup> )	452	994	488 kg (1,075 lb)	488	1,075	Stabilizers, available with guards		
1.00 m <sup>3</sup> (1.31 yd <sup>3</sup> )	462	1,016	Cutting edge, bolt-on, two piece	70	154	Street	37	81
1.07 m <sup>3</sup> (1.4 yd <sup>3</sup> )	473	1,041	Fenders, 4WD, front	12	26	Reversible	38	84
Multi purpose buckets			Fenders, rear extensions	1	2	Sticks		
1.0 m <sup>3</sup> (1.3 yd <sup>3</sup> )	557	1,225	Guards			Extendible	255	561
1.0 m <sup>3</sup> (1.3 yd <sup>3</sup> ) w/ forks	884	1,945	Boom protection plate	18	39	Teeth, loader bucket	45	99
1.1 m <sup>3</sup> (1.4 yd <sup>3</sup> )	742	1,632	Stabilizer, rock	31	68	Transmission, auto-shift	25	55
1.1 m <sup>3</sup> (1.4 yd <sup>3</sup> ) w/ forks	908	1,998	Hydraulic valves, loader (3rd valve for GP, MP or Quick Coupler)	27	59	Vandalism protection		
Carriage, fork	218	480	Hydraulic valves, backhoe			Gauge cover	1	2
Material handling arm	425	953	5th Function	5	11	Padlocks	1	2
			6th Function	5	11	Hood lock	0	0



# 420E/420E IT Backhoe Loaders

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AEHQ6011 (09-2008)  
Replaces AEHQ5685-02

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

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