

Cat[®] Buckets

311–390 Hydraulic Excavators

FEATURES:

Designed as an Integral Part of the Cat System

 As Cat[®] Excavators continue to set industry standards in general, quarry and heavy construction applications, Cat Buckets are continually enhanced to match machine performance and productivity improvements with each generation.

Next Generation

- Next Generation buckets feature enhanced geometry. Design changes allows the bucket to fill efficiently with each dig resulting in a smoother, faster dig cycle for improved cycle times when used with E and D series excavators.
- Greater wear coverage and a new lift eye design are additional features of Next Generation buckets.

Solutions

- A tremendous amount of research and world wide customer feedback is integrated into each bucket design.
- Customer-pleasing performance is at the heart of each bucket model. A wide range of standard and specialized excavator buckets are available with solutions for digging, excavating, loading and finishing.

Reliable

- Caterpillar[®] has a 35 year legacy designing and manufacturing excavator buckets world-wide. You can count on genuine Cat quality built into every bucket.
- Cat Buckets are developed and tested with Cat Excavators to provide a system with exceptional performance and reliability.

Made to Last

- Cat Buckets are designed and built to Caterpillar specifications

 guaranteeing quality and durability.
- High-strength tempered steel provides durability without requiring thick, heavy plates and gives longer life and larger payloads.
- Cat Buckets have up to 50% more wear life when compared to popular competitors.
- Cat Buckets offer optimal load distribution where they attach to the machine.
- The shape of Cat Buckets is designed with optimal wear, increased load-ability, and reduced maintenance as main considerations.

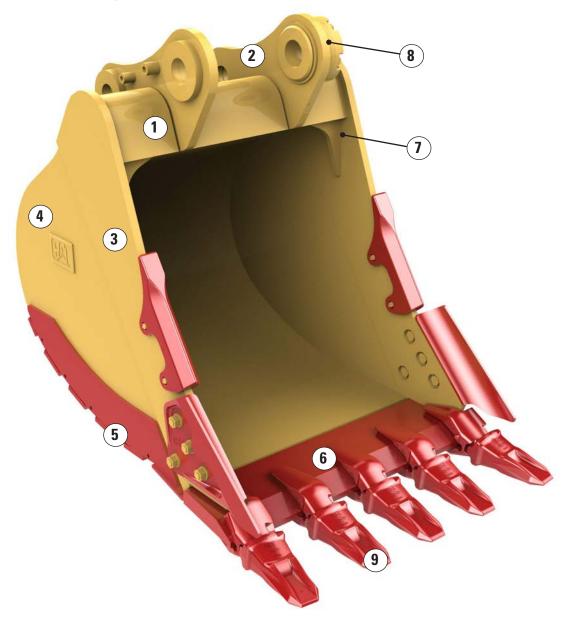
Performance

- Cat Hydraulic Excavators are the industry standard for construction, performance, power and versatility. Cat Excavator Buckets match the machine to the job and provide the best possible performance in your particular application.
- Whether quarry, construction site or landscaping Cat Buckets focus the full power and performance of the machine on the task at hand and efficiently complete the task.





Constructed for Durability, Performance



1) Hinge

Optimized reinforced construction for high strength and performance matched to the machine's power. Pin on or dedicated hinges are available,

$\mathbf{2}$ Hinge Plates

Pass through torque tube for better load distribution and durability.

$\mathbf{3}$) Sidebar

Pre-drilled to add sidebar protection.



$(\,{f 5}\,)$ Side Wear Plates

Side plates meet up with bottom wear plates for seamless corner protection.* High strength steel utilized for added protection.

$\mathbf{(6)}$ Base Edge

Straight or "spade", depending on application.

7) Gussets

For maximum rigidity.

) Adjuster Group

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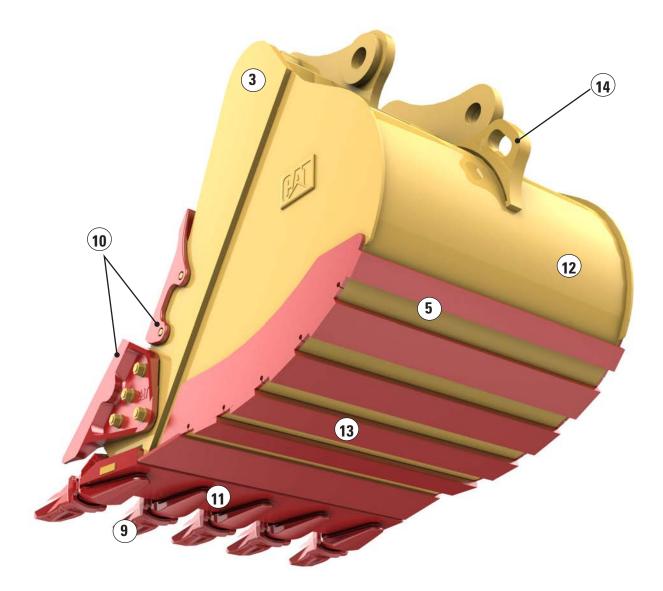
Allows for easy correction for wear between the stick and bucket.

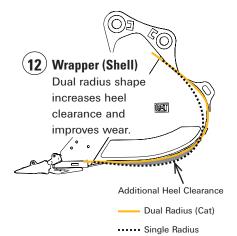
9) Teeth (Tips)

Forged from steel with properties that maintain hardness for long wear life in tough digging applications.

(10) Sidecutters & Sidebar Protectors For protection and penetration.







(13) Horizontal Bottom Wear Plates Protects wrapper area and reinforces

bucket for greater strength and rigidity. Easily replaced.

(14) Lift Eye

Larger loop and thinner eye design* for easy shackle matching.

High strength microalloyed and T1 equivalent, high-strength, quenched and tempered steel: 90,000+ psi yield strength.

400 Brinell, high-strength, abrasionresistant steel: 135,000 psi yield strength. 30% more wear resistant than T1.

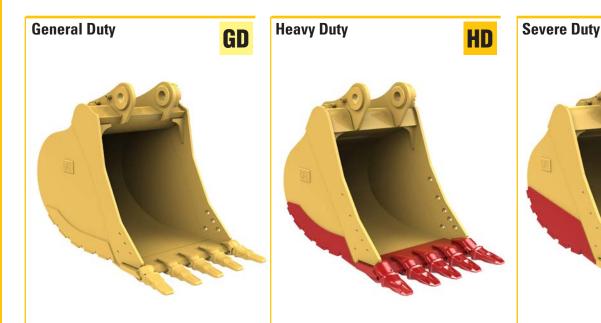
Bucket shaded to differentiate material types. Actual buckets are Cat yellow.

*Available on Next Generation buckets.

Four Durability Categories Suitable for Any Situation

Next Generation Cat buckets feature four standard bucket durability categories. Each is based on the bucket's intended durability when used in recommended application and material. Each is available as pin-on, or can be used with a quick coupler.

Next Generation buckets are available for 311-390 excavators.



For digging in low impact, lower abrasion materials such as dirt, loam, and mixed compositions of dirt and fine gravel. Example: Digging conditions in which General Duty tip life exceeds 800 hours.

Typically larger General Duty Buckets are the most popular sizes, and are used by site developers to mass excavate in low abrasion applications.

- Lighter structures decrease load time and increase the weight that can be lifted.
- Standard size adapters and tips.
- Sidebars are pre-drilled for optional sidecutters.
- On 374 and 390, sidebars are predrilled for optional sidecutters and sidebar protectors.

The most popular excavator bucket style. A good "center line" choice, or starting point, when application conditions are not well known.

For a wide range of impact and abrasion conditions including mixed dirt, clay and rock. Example: Digging conditions where Penetration Plus tip life ranges from 400 to 800 hours.

Heavy Duty Buckets are recommended for trenching in utilities work, and for the general contractor working in a variety of different situations.

- Thicker bottom and side wear plates than General Duty Buckets for more durability.
- Adapters and tips for 319-336 buckets are up sized for enhanced performance and durability.
- Sidebars are pre-drilled for optional sidecutters, and in many instances, sidebar protectors.

For higher abrasion conditions such as well shot granite and caliche. Example: Digging conditions where tip life ranges from 200 to 400 hours with Penetration Plus tips.

- Bottom wear plates are about 50% thicker than Heavy Duty Buckets.
- Side wear plates are about 40% larger than Heavy Duty Buckets for added protection against abrasive and gouging wear.
- Adapters and tips are sized to accommodate higher loads and abrasion conditions.
- Sidebars are pre-drilled for optional sidecutters and sidebar protectors for 320 and larger buckets.

Red areas on bucket images illustrate protection against wear as it increases across each category.

Choosing the Right Durability

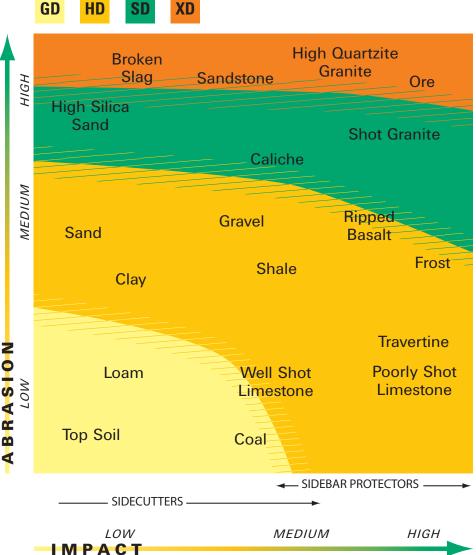
Choosing the wrong bucket can easily reduce production, and increase operating cost by 10–20% or more. It can also cause unnecessary wear and fatigue for both machine and bucket. Contact your local Cat dealer for more detailed information on choosing the right excavator, bucket and Work Tool attachment combinations to meet your application needs.

Extreme Duty

For very high abrasion conditions including high quartzite granite. Example: Digging conditions where tip life is less than or equal to 200 hours with Extra Duty tips.

- Extreme Duty Buckets are armored with extra protection from abrasion and gouging wear. They include: Corner Shrouds [A], Sidebar Protectors with Shear Blocks [B], Additional Wear Material on the side [C], and Base Edge End Protectors (BEEPs) [D]
- Even more protection is available for buckets on larger machines. 374 and 390 buckets also include: Liners [E], Base Edge Segments [F] and Mechanically Attached Wear Plates (MAWPs) (MAWPs not shown. Located on bottom of the bucket.)
- Side wear plates are larger; and
- Adapters and tips are sized to accommodate higher loads and abrasion conditions.

Recommended Material for Bucket Durability



Bucket Styles for Specific Situations

Several different Bucket styles are available - each with a special purpose:



Ditch Cleaning

These buckets are designed for cleaning ditches, sloping, grading and other finish work. Their shallow depth and compact size make working in confined areas easier. Drainage holes allow liquid to empty so material dumps more easily.

Ditch Cleaning Buckets are available for 311-336 excavators.



Pin Grabber Performance

This bucket is designed with a patented recessed pin to provide maximum digging performance while keeping the versatility and convenience of a coupler. Tip radius is reduced and allows up to 10% improvement in breakout force when compared to a conventional pin on bucket and coupler combination.

Pin Grabber Performance Buckets are available for 315–349 excavators, in General Purpose and Severe Duty durability.



Power

Power Buckets are for use in abrasive applications where breakout force and cycle times are critical — and for use in materials such as tightly compacted mixed dirt and rock. (Not recommended for clay.) Breakout force is maximized due to decreased tip radius and increased pin spread. Machine cycle times in most material is improved over a standard bucket in a similar application.

Heavy Duty Power Buckets are available for 320-336 excavators.



High Capacity

High Capacity Buckets are designed and built for use in high production truck loading applications. With proper application and set up, these buckets will move more material in a minimal amount of passes — maximizing production.

High Capacity Buckets are available for 336-390 excavators, in General Duty durability.

Visit your Cat dealer to understand the many ground engaging tool

options and for technical assistance in selecting the tool you need

K Series Ground Engaging Tools (GET)

Penetration & Protection

Choosing the right GET is important to getting the highest return on your machine investment. Ground Engaging Tools protect the expensive parts of your buckets and the resulting longer life reduces your maintenance costs. GET also play a big part in determining how well your machine performs in a specific application.

Penetration Plus



Recommended for most excavator applications including high impact trenching, excavation and loading. Good penetration. Stays sharp.

Spike



Recommended for maximum penetration, especially in cohesive materials. Excellent penetration, less wear material, stays sharp. (Use Double Spike in corners.)

Penetration



for each specific job.

Recommended for harder-to-penetrate, moderate impact, lower abrasive materials. Very good penetration, less wear material, stays sharp.

Double Spike



Recommended for harder-to-penetrate, fracturable materials. Very good penetration, stays sharp. Use in corner positions with Spike centers.

Sidebar Protection for Your Bucket



Sidebar Protector

Protects sidebars from wear and damage. Pins on for easy removal and installation. Can be stacked, one above the other on the side of the bucket for more protection.

General Purpose Sidecutter

Effective in moderate-impact conditions. Suitable for most soil conditions. Provides a strong, wear-resistant surface to help protect bucket sides. Extends bucket side width to match the teeth bite.



Heavy Duty Sidecutter

For tough digging conditions. More wear material. Covers more of sidebar for enhanced protection of the bucket. Scalloped profile improves bucket penetration and machine performance.



Strikeoff Sidecutter

Half-arrow shaped to provide better penetration than bare bucket, while protecting the lower bucket sides and corners. Use in moderate-to-light conditions. Can be stacked for more protection.

Quick Couplers

Quick Couplers make Cat Work Tool attachments interchangeable, so a fleet of machines can share a common tool inventory. Quick Couplers make it easy for one man to switch tools, and one machine to switch from task to task. Quick Couplers increase the machine's versatility on the job site.

Caterpillar offers buckets hinged for each of these coupler styles:

Pin Grabber Coupler

 Pin grabber style Couplers allow the machine to pick up and engage virtually any bucket and Work Tool attachment equipped with standard pins. No modifications are required.



- Easy to activate, easy to engage. It's the easiest way to improve productivity on your job site.
- Coupler is weighted right to allow big bucket payloads. It is sized right to maintain excellent breakout force and digging power.
- Available for 311–390 excavators.

Dedicated Coupler

 Engages tools equipped with hooks. Weld-on or bolt on hooks are available for Multi-processors, Compactors, Hammers and most Buckets. Tip radius of Dedicated Coupler Buckets is identical to pin on. Full breakout forces is available at all times.



Both hydraulic and manual versions are available.

For more information on the variety of Work Tool attachments available for Excavators contact your local Cat dealer.

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

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