CAT[®] GROUND ENGAGING TOOLS

735B

FOR CONSTRUCTION



MADE FOR YOUR APPLICATION.

Protect expensive machine components. Reduce your operating costs. And get the most out of your machine's performance.

The most important part of any machine is its work tool. Buckets or blades, tips or edges, rippers or side cutters—no matter the size, worktools and Ground Engaging Tools (G.E.T.) are the main reason the machine exists. G.E.T. have a direct effect on the machine's ability to produce. Improper selection affects not only your productivity, but also your fuel consumption, maintenance costs and possibly the longevity of your equipment.

Caterpillar offers "off-the-shelf" and custom G.E.T. systems that maximize machine productivity, and your Cat[®] dealer can help you establish an effective management program that minimizes preventable problems—working to reduce your operating and maintenance costs.

Use this catalog to learn more about what's available for your equipment, then work with your Cat dealer's G.E.T. specialist or PSSR to select the components built for your industry and jobsite conditions. We'll make sure you get the rugged durability, solid protection and lowest cost-per-ton production system you need.

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*Note: Please send all feedback to https://dealer.cat.com/en/ps/parts/parts-mktg/get/c/ form.html 記書では、見るの

DOZERS

No other manufacturer in the world has more experience moving material than Caterpillar. We invented the dozer over 100 years ago—and we've been the market leader ever since. There are more Cat dozers at work in the world than any other brand.

Dozers work in dozens of different industries, applications, climates and environments and can be customized for specific jobs—just like the G.E.T. that protect their blade or ripper system. From parts availability to expert support and service, Cat customers can count on one reliable source—Caterpillar and Cat dealers.

SYSTEM OVERVIEW

Dozers move ground at mines, construction sites, residential developments and hundreds of other places. A dozer's main work tools are a blade and a ripper. The universal blade is curved, wide and tall so that it can carry material. Other blades are flat or shorter, but they all do a similar job: leveling the ground. The ripper loosens the rocky or compact earth, which makes dozing or loading easier.

Both the blade and ripper have to balance ground penetration with wear life. Excessive worktool or G.E.T. wear material can make the machine less effective. Cat dozer cutting edges and end bits are designed as a balanced system to move more material over a longer period with less downtime—which translates into a lower cost per hour for you. Select from dozens of ripping system configurations or have your Cat dealer help you choose the best option for your application.



CUTTING EDGES & END BITS

BALANCED EDGE SYSTEMS FOR EVERY APPLICATION.

Matching your cutting edge wear rates with your end bit selection is easy with our broad portfolio of options. You achieve a balanced system, which helps reduce both maintenance intervals and operating costs, leading to more productivity.

Cat end bits and cutting edges can be custom ordered with Cat Abrasion Resistant Material (A.R.M.), which is recommended for applications where sand, gravel or other abrasive materials severely diminish wear life. Hard tungsten carbide particles are bonded to critical wear areas, providing up to five times greater wear life than similar end bits and cutting edges without A.R.M. See your Cat dealer for details.

SAFER, SIMPLER INSTALLATION

MINIMAL THROW AWAY

IMPROVED PRODUCTIVITY

Threaded holes allow easier handling of edges at first install or during rotation to wear opposite edge.

Multiple edge sections allow you to rotate or replace only the worn areas.

Broad offerings allow you to have both end bit penetration and long cutting edge life, resulting in less maintenance.



CUTTING EDGE & END BIT OPTIONS

We have G.E.T. for your blade, no matter the application or environment. As machines grow larger, their jobs become tougher, and so do Cat G.E.T. Maximum wear life and breakage resistance is possible with our steel alloy that can endure 2 times the heat and pressure of traditional blade steel products. Consult your local Cat dealer to help determine the best cutting edge system for your application to give you the lowest cost per hour.



D3 - D5 END BIT OPTIONS



LEVEL CUT/ FINISH (FACTORY FIRST FIT)

- » Recommended for finish and semi-finish dozing
- » Matches cutting edge's depth of cut
- » Low-impact, low-abrasion materials only





LEVEL CUT REVERSIBLE

- » Reversible finish and semi-finish dozing end bits
- » Used in applications where curbing is not a requirement



LEVEL CUT EXTENDED REVERSIBLE

- » Used in applications where curbing is not a requirement



D6 END BIT OPTIONS



LEVEL CUT/ FINISH (FACTORY FIRST FIT)

- » Recommended for finish and semi-finish dozing
- » Matches cutting edge's depth of cut
- » Low-impact, low-abrasion materials only





LEVEL CUT REVERSIBLE

- » Reversible finish and semi-finish dozing end bits
- » Used in applications where curbing is not a requirement



HOT CUPPED

» Forward protruding profile for better penetration than flat plate



GENERAL PURPOSE

- » Sharpened, forward protruding profile for excellent penetration
- » For fast blade loading, high productivity applications



UTILITY

- » Thick cross-section for high face wear applications
- » Recommended for high-impact, high-abrasion applications



EXTENDED WEAR LIFE (EWL)

- » 25% more usable wear material than General Purpose
- » Prolonged life and excellent penetration in abrasive conditions



D7 - D9 END BIT OPTIONS



LEVEL CUT/ FINISH

- » Recommended for finish and semi-finish dozing
- » Matches cutting edge's depth of cut
- » Low-impact, low-abrasion materials only



UTILITY

- » Thick cross-section for high face wear applications
- » Acceptable in high-impact, high-abrasion applications





HOT CUPPED

» Forward protruding profile for better penetration than flat plate





GENERAL PURPOSE (FACTORY FIRST FIT)

- » Sharpened, forward protruding profile for excellent penetration
- » For fast blade loading, high productivity applications



TION



EXTENDED WEAR LIFE (EWL)

- » Prolonged life and excellent penetration in abrasive conditions



D10 - D11 END BIT OPTIONS



LEVEL CUT/ FINISH

- » Recommended for finish and semi-finish dozing
- » Matches cutting edge's depth of cut
- » Low-impact, low-abrasion materials only



UTILITY

- » Thick cross-section for high face wear applications
- » Acceptable in high-impact, high-abrasion applications



HOT CUPPED

» Forward protruding profile for better penetration than flat plate



GENERAL PURPOSE

- » Sharpened, forward protruding profile for excellent penetration
- » For fast blade loading, high productivity applications



EXTENDED WEAR LIFE (EWL: FACTORY FIRST FIT)



- » 25% more usable wear material than General Purpose
- » Prolonged life and excellent penetration in abrasive conditions



EXTREME EXTENDED WEAR LIFE (EEWL)

- » 25% more usable wear material than General Purpose
- » Prolonged life and excellent penetration in abrasive conditions



HIGH ABRASION

- » New cast edges and end bits provide up to 40% longer wear life than Extended Wear Life (EWL)
- » Optimized material placement

HIGH-ABRASION CAST CUTTING EDGE SYSTEM

MAXIMIZE MACHINE UPTIME IN THE MOST ABRASIVE APPLICATIONS.

Designed to fit Cat D10 and D11 universal and semi-universal blades, this cast cuttingedge system delivers reduced machine downtime and maximum productivity in low to moderate impact pushing applications. The new high-abrasion end bits are now married up with complementary cast high-abrasion cutting edges, an offering that Cat has never had in the past.

MAXIMUM WEAR LIFE

LESS Throw Away

New cast edges and end bits provide up to 40% longer wear life than Extended Wear Life (EWL).

Optimized material placement results in more wear material and less throwaway weight.



A COUPLE MINUTES CAN SAVE YOU HOURS.

Ensuring a long life for your blade and the G.E.T. that protects it involves three simple steps. Clean surfaces, new hardware and proper installation technique are shared as tips and tricks below. Always follow the specific instructions for your machine. Your local Cat dealer is only a phone call away if you need assistance.

1) Clean and Pristine

- » Surfaces, bolts and nut threads must be clean to ensure maximum clamping force
- » When installing, use new hardware as old bolts may have suffered metal fatigue

2) Center Out

- » Cutting edge bolts are installed from the center outward—do not install from both ends toward the center
- » End bit bolts are installed first from the center outward, then from the center inward

3) Torque, Bang, Torque

- » Tighten all bolts to the required torque
- » Wearing safety goggles, seat bolt heads in the countersinks with a heavy hammer
- » Tighten the bolts again to required torque





BLADE PROTECTION

PUSH BACK ON COSTLY REPAIRS.

Protect your blades from impact and aggressive wear with the line of Cat blade protection for dozers. All Cat blade products are manufactured to the factory contour, making fit and installation fast and efficient.

REDUCE BLADE DAMAGE

EXTEND BLADE SERVICE LIFE

SIMPLIFY INSTALLATION Push plates distribute the high forces created when pushing scrapers.

Wear plates extend the service life of the blade "skin" in highly abrasive conditions.

Cat wear bars are 450 BHN and beveled to accept weld bead—a fast way to add strength and protection.



BLADE MAINTENANCE & REPAIR

Only a Cat cutting edge support will guarantee dimensional accuracy like the factory originals. Cutting edges and end bits are fastened to your cutting edge support. This bolted connection requires a perfectly flat and smooth surface the full length of the blade to ensure your G.E.T. stays secure. When millimeters matter, count on Cat quality and your Cat dealer's capabilities.



SIDEBAR PROTECTOR

Dozers need sidebar protection, too. Large dozers, like large loaders, work in high-impact and extreme abrasion. Increase carrying capacity and simplify your blade maintenance with hammerless protection. Simply weld in the protector adapter once and save hours each time you replace the sidebar protection.

LOW MAINTENANCE

HAMMERLESS

Protects the blade edge and extends sidebar reach to reduce maintenance cost and increase capacity.

Fast, easy removal and installation. Reduces risk of injury.



RIPPER SYSTEMS

CAUSE A DISTURBANCE, GAIN PRODUCTIVITY.

Selecting the proper ripping tools can make the difference between just being able to rip a material and being able to reach optimum efficiency and maximum production (lowest cost/yd³). Production ripping (>20% of operation) usually requires a single shank ripper, as do very hard or tightly compacted materials. The more varied the job conditions, the greater the need for the multishank ripper. The multishank is especially useful in pre-ripping for scrapers or other loading tools.

LOWER OPERATING COSTS

HAMMERLESS DESIGN Hammerless design allows pin re-use on R style adapters.

Fast, easy removal and installation. Reduces risk of injury.



For more information on ripper systems, please reference The Handbook of Ripping (AEDK0752).

RIPPER SYSTEM AVAILABILITY

Tooth penetration can be the key to ripping success. That's why we offer a variety of tip styles and profiles. Our alloy steel tips withstand higher operating temperatures and are also self-sharpening. Shank protection helps you cut the material and extend your maintenance intervals. The products below are readily available, or you can consult your Cat dealer for custom options.

| TIP OPTIONS | R350 Side Pin _: CapSure | | R 4 5 0 Side Pin _: CapSure | | R500 Side Pin _f CapSure | | R 5 5 0 Side Pin _t CapSure | |
|-----------------------------------|--|--|---|--|--|--|---|--|
| Centerline - Short | | | | | | | - | |
| Centerline - Intermediate | | | | | | | | |
| Centerline - Intermediate A.R.M. | | | | | | | | |
| Centerline - Long | | | | | | | | |
| Centerline - Sharp Limestone | | | | | | | | |
| Centerline - Sharp A.R.M. | | | | | | | | |
| Penetration - Short | | | | | | | | |
| Penetration - Intermediate | | | | | | | | |
| Penetration - Intermediate A.R.M. | | | | | | | | |
| Penetration - Long | | | | | | | | |
| Penetration - Sharp | | | | | | | | |

| SHANK PROTECTOR | R350 Side Pin _f CapSure | R 4 5 0 Side Pin ₁ CapSure | R 5 0 0 Side Pin _t CapSure | R 5 5 0 Side Pin _t CapSure |
|---|--|---|---|---|
| Protector - Long (110mm Shank) | | | | |
| Protector - Std (110mm Shank) | | | | |
| Protector - Long (100mm Shank) | | | | |
| Multi pc Sharp & Guard (100mm Shank) | | | | |
| Protector - Std (100mm Shank) | | | | |
| Protector - Long (90mm Shank) | | | | |
| Protector - Std 1 pin (90mm Shank) | | | | |
| Protector - Std 2 pin (90mm Shank) | | | | |
| Protector - Long (75mm Shank) | | | | |
| Protector - Sharp (75mm Shank) | | | | |
| Protector - Std (75mm Shank) | | | | |
| Protector - Std (73mm Shank) | | | | |

HAMMERLESS RIPPER TIPS CAPSURE RETENTION

Always use the longest tip without excessive breakage. Centerline tips have equal wear material on both sides and can be reversed, which can extend the life and help maintain sharpness. Cat penetration ripper tips have an aggressive angle to break through even the hardest surfaces and dig into the ground more effectively. Both hammerless options feature a topside deflector, which creates a smooth transition with the shank protector.



SHORT CENTERLINE

- » Used in extreme impact conditions
- » Sacrifices some wear material



INTERMEDIATE CENTERLINE

- » Used for moderate impact and abrasion conditions
- » 33% longer than Short Centerline



INTERMEDIATE PENETRATION

» Used for moderate impact and abrasion conditions



LONG PENETRATION

- » Designed for low-impact, highly abrasive conditions where breakage is not a problem
- » 20% longer than Intermediate Penetration

INSTALLATION & REMOVAL

Hammerless removal and installation is possible with your current side pin shank/adapter system. CapSure[™] retention is built into each tip, so you only need to insert a pin to experience faster, safer, easier tip change out.



Insert pin into adapter hole.



Insert washer into adapter hole.



Slide the tip onto adapter.



Turn retainer 180° to lock/unlock.





Removal and installation animation is available at www.youtube.com/watch?v=UW6_jjqa_eA or by scanning the QR code to the right.



R SERIES RIPPER TIP OPTIONS

Always use the longest tip without excessive breakage. Centerline tips have equal wear material on both sides and can be reversed, which can extend the life and help maintain sharpness. Cat penetration ripper tips have an aggressive angle to break through even the hardest surfaces and dig into the ground more effectively.

| | SHORT CENTERLINE Used in extreme impact conditions Sacrifices some wear material | |
|----------|---|-------------------------------|
| | INTERMEDIATE CENTERLINE » Used for moderate impact and abrasion conditions » 17% more wear material than Short Centerline | A.R.M. OPTION AVAILABLE |
| - | LONG CENTERLINE » Used in low-impact, high-abrasion conditions where breakage is not a problem » 30% more wear material than Intermediate Centerline | |
| | SHARP CENTERLINE A.R.M. » Intermediate Centerline tip, which is tapered to a pick-like point on the end » A.R.M. strip on one side enhances sharpening action » Offers best penetration and 13% more wear material than Short Centerline | A.R.M. OPTION AVAILABLE |
| | SHARP LIMESTONE » Used in limestone or caliche applications » Chisel point penetrates in hard-to-penetrate materials » 16% more wear material than Short Centerline and 10mm shorter than Intermedi | ate Centerline |
| | SHORT PENETRATION Used in extreme impact conditions Sacrifices some wear material | |
| / | INTERMEDIATE PENETRATION » 17% more wear material and 50mm longer than Short Penetration » Used for moderate impact and abrasion conditions | |
| | LONG PENETRATION Used in low-impact, high-abrasion conditions where breakage is not a problem 4% more wear material and 47mm longer than Intermediate | A.R.M. OPTION AVAILABLE |
| | SHARP PENETRATION » Intermediate Penetration length tip | |

» Factory sharpened to ensure maximum penetration

INSTALLATION & REMOVAL

The R Series Tooth and Adapter system uses the standard pin and retainer system. The Tooth Pin Remover tool is available to make removal easier.





RIPPER SHANK PROTECTOR

WANT BETTER PRODUCTIVITY WITH LESS COST? WE'VE GOT YOU COVERED.

Shank protectors cut through material with sharp edges, lowering the ripping effort. Minimize the wear, and required maintenance, on the more expensive shank body when you guard it with a protector. Never rip without Cat G.E.T. Our hammerless options offer fast, easy removal and installation without specialty tools.

SHARPENED PROFILE

EXTENDED PROTECTORS

FULL LENGTH

Cuts through tough and compact materials, causing lower ripping resistance and less horsepower loss.

60% more coverage.

Triangle-shaped guard-bar integrates with sharp lower protector for maximum ripping protection.



RIPPER SHANK PROTECTOR OPTIONS

Four different protection options align with the tractor's ripping system and the most common applications.



INSTALLATION & REMOVAL

Hammerless retention made simple. The CapSure™ locking system allows for safer and easier removal/installation in four steps.



Place shank protector over lower pin.



3

Position retainer over upper pin.



Turn retainer 180° to lock/unlock.



Removal and installation animation is available at www.youtube.com/watch?v=UW6_jjqa_eA or by scanning the ΩR code to the right.



MOTOR GRADERS

We offer hundreds of cutting edge options available on the shelf, plus the ability to customize through our Made as Order (MAO) program. Unique offerings like the Cat GraderBits[™] system meet the toughest application needs and are complemented by multiple End Bit options. Trust your Cat dealer to offer you solutions that focus on total machine productivity.

CHOOSING AN EDGE

Edge selection is critical for enhancing production and keeping cost to a minimum. Application affects the cutting edge shape, metallurgy and style. Impact, penetration and abrasion define your application environment. An edge has to penetrate the material and not break during operation. Edge life then becomes a matter of metallurgy and thickness.



WHAT IS YOUR APPLICATION?



DEVELOPING A ROAD OR PERFORMING HEAVY MAINTENANCE

» A flat edge is best suited for this application. A better penetrating option is a flat serrated edge. A flat edge has limited ability to carry material forward.



GRADING HARD-PACKED GRAVEL, FROZEN EARTH AND ICE

» A serrated edge penetrates better than a continuous edge because it exerts more down pressure. A curved serrated edge penetrates better than a flat serrated edge with a forward mold board.



RECONDITIONING OR FINISH GRADING AN EXISTING ROAD SURFACE

» Curved edges penetrate the roadway while carrying existing material forward to leave a smooth flat surface. A better penetrating option is a curved serrated edge. A serrated edge will not leave as clean a roadway surface as a continuous edge.

MOTOR GRADER CUTTING EDGE OPTIONS

PARTNER WITH CATERPILLAR, EDGE OUT THE COMPETITION.

Caterpillar offers a wide range of cutting edges for motor graders. Each provides certain benefits when used in the appropriate application. Using the right edge is critical for enhancing production and keeping total costs to a minimum. The three factors to consider in choosing a cutting edge are shape, width and thickness.

There are two basic edge shapes—flat and curved—with serrated edges available in both configurations. In addition, the Cat GraderBits system dramatically expands the range of edge shape options. Cat offers two types of grader edges and three edge thicknesses for the 16M and 24M motor graders.

SUPERIOR DURABILITY, MORE OPTIONS

EXTENDED EDGE LIFE

MAXIMUM PENETRATION, MINIMUM WASTE

Cat DH-2 through-hardened steel edges are available in a variety of shapes and thicknesses to fit every application.

Maximize your edge life with tungsten carbide edges.

Cutting bit systems.

THROUGH-HARDENED CUTTING EDGES

Most Cat edges are through-hardened steel, which offers high-impact resistance. High-carbon edges have good surface hardness and perform well in high-abrasion, low-impact applications such as finish work. High-carbon edges will not withstand the impact level of a through-hardened edge.



FLAT

- » Heavy road maintenance and pioneering
- » Maximum strength and available wear material
- » Best option for abrasion and impact resistance



FLAT SERRATED

- » Better penetration than a continuous edge (greater down pressure per inch of edge contact)
- » Designed to penetrate packed gravel, frozen earth and ice
- » For severe impact conditions, install over a 6" (152 mm) edge to reduce tooth breakage



CURVED

- » Provides superior penetration and rolling action necessary for fine grading and finish work
- » Finishing tolerances less than 1/4" (6 mm)—the best value may be in selecting a narrow and thin cutting edge



CURVED SERRATED

» A curved serrated edge penetrates better than a straight serrated edge with a forward mold board



EDGE WIDTH EQUALS WEAR MATERIAL

- » An 8" (203 mm) edge provides twice the wear material as a 6" (152 mm) edge at about 35% more cost
- » Hardware cost and R&I downtime are reduced by 50%

TUNGSTEN CARBIDE TILE CUTTING EDGES

Cat Tungsten Carbide Cutting Edges combine through-hardened steel with the wear resistance of tungsten carbide. When used in high-abrasion, low-impact applications, they can provide up to 20 times the life of a standard through-hardened edge. Fewer edge changes means less downtime and lower hardware costs.



TUNGSTEN CARBIDE EDGES

- » Tungsten carbide edges have a continuous row of trapezoid-shaped carbide "tiles." This patented shape forms a leading / cutting edge
- » Carbide tile bottom must be flat to the ground. 20° maximum tilt
- » Max 5 mph/8kph
- » Do not use on roads with large embedded rocks



FLAT EDGES

- » Maximum strength and available wear material
- » Longest wearing edge available in high abrasion and low impact



CURVED EDGES

- » Curved-edge design improves penetration and rolling action
- » Trapezoid-shaped tungsten carbide tile on leading edge stays sharp as it wears
- » Shorter edge sections speed rotation and reduce "throw-away" due to edge crowning



SERRATED EDGES

- Better penetration than a continuous edge (greater down pressure per in² of edge contact)
- » No cast angle restrictions

TUNGSTEN CARBIDE INSERT CUTTING EDGES

Cat carbide insert edges offer long wear life in higher speed applications like state/county road snow removal. The tungsten carbide is brazed into a milled groove in the center of the edge. The design offers impact resistance and minimizes edge "crowning" in applications that require a level grading operation.





ROTATING BIT SYSTEM

The rotating bit system outperforms steel blades in high-production road reconditioning applications. Individual cutting bits have tungsten carbide tips and form a serrated edge to penetrate and lift material to the surface immediately. As a result, most road maintenance jobs can be accomplished in a single pass.

MORE PRODUCTION, LESS WASTE

NO RESTRICTIONS

EASY INSTALLATION & MAINTENANCE

Material is brought to the surface for reuse, reducing the expense of spreading new gravel.

No cast angle restriction.

Bits changed individually with no special tools.



ROTATING BIT SYSTEM

Rotating Scarifier Bits are self-sharpening for more uniform wear and long life. Cutting height is maintained as cutting tools may be rotated from position to position. Carbide bits can last as long as 5 -10 sets of conventional grader blades.

Rotating Scarifier Bits are made for applications such as dirt and gravel reclamation, oil road reclamation, and snow and ice removal.



1" SHANK » Smooth design

7/8" SHANK

» Engineered with flat sides that aid in bit rotation



ADAPTER BOARDS

- » Either 5/8" or 3/4" bolt hole punch
- » 3' (914mm)-21 bits
- » 4' (1219mm)-28 bits
- » Standard Board uses 7/8" bit
- » Heavy Duty board uses 1" bit



OPERATING TIPS

- » 20° Board Angle
- » Moldboard may vibrate and bits may not turn if angle is not correct

INSTALLATION & REMOVAL

Improve safety and simplify edge change-out. Cat cutting edges allow you to use a threaded bolt and link to remove and install sections. Even worn edges can be removed, because the threads are located in the back half of the hole.





OPERATING TECHNIQUES FOR REDUCED COST.

Through better management of the interface between machine and materials, operators can maximize productivity, lower machine operating costs and reduce cab vibration, improving operator comfort.



MOLDBOARD POSITION

- » Start with moldboard 2" (4" for 24M) ahead of the edge
- » Grade with cutting edge 90° to the road
- » Maintain fixed angle to ensure constant edge thickness
- » Laid back reduces penetration and can wear moldboard
- » Frequent angle changes will shorten the edge life



SPEED AND EXCESSIVE DOWN PRESSURE

- » Use accumulator to absorb shocks
- » < 6mph/8kph speed
- » Excess speed can cause edge slivering
- » Need penetration? Choose a thinner edge, a serrated edge or the Cat GraderBits system for the most compacted materials



CROWNING

- » Occurs when the cutting edge conforms to the material being graded
- » A narrow and thin edge reduces the "throw away" material
- » Extreme crowning may require a bit system



STANDARDIZE YOUR HARDWARE

- » Moldboard bushings reduce 3/4" holes to 5/8"
- » Simplify inventory and lower cost

GRADERBIT2[™] SYSTEM

SMOOTH OUT THE TOUGHEST ROADWAYS IN A SINGLE PASS.

GraderBit2 System is ideal for finish grading, maintaining roadways or reconditioning haul roads. Tungsten carbide cutting bits deliver up to 20x wear life of through-hardened cutting edges. 7 different bit designs can form a continuous edge or 10 servation patterns that allow pass-through of 15 to 60mm aggregate.

LOWEST OPERATING COST

APPLICATION ADAPTABLE

BUILT TO BE REBUILT

20% CPH SAVINGS VS THROUGH HARDENED EDGES

2 CONTINUOUS EDGE SYSTEMS & 10 SERRATED OPTIONS RECONDITION ANY SURFACE

OVERLAY CHANNELS AND REPLACEABLE BUSHINGS EXTEND BOARD LIFE

GRADERBIT2[™] SYSTEM

BIT BOARDS THAT ARE BUILT TO PERFORM IN YOUR APPLICATION

Grooves cast into the boards accept weld overlay or material packing in order to extend board wear life, while installing and removing the boards is made easier through pre-drilled lifting eye holes. Adapter boards feature an off-set design that ensures optimal bolted joint strength and consistent bit placement.


GRADERBIT2[™] SYSTEM

RETENTION THAT INSTALLS WITHOUT TOOLS AND ADJUSTS TO YOUR GRADING CONDITIONS

Bits are installed effortlessly with no tools thanks to pull-ring pin that inserts into the bit shaft and locks over the bit. Bit life is optimized at any cast angle thanks to Angling plates that always keep the bits facing the direction of travel.



The pull-ring pin makes bit installation / removal easy without the need for tools.

The bit shaft fits into the angling plate to prevent the bits from rotating. 7 plate options allow for a 0° to 30° Blade cast angle in 5° increments.



Angle plates keep the carbide facing the direction of travel to reduce erosion of the bit body, which can reduce bit life.





7 different bit designs can form a continuous edge or 10 serration patterns that allow pass-through of 15 to 60mm aggregate. Serration patterns remove holes and ridges from compacted surfaces. Wide or SnowBit[™] create a continuous edge the system can be used for finish grading.



WIDE

At 63mm wide this bit can be configured as a continuous edge or placed in every other hole for a 2.5" serration pattern.



WIDE MINING

63mm wide & 12mm taller. Imbedded carbide layer adds 72% more carbide to extends bit life.



STANDARD

30mm, this bit offers a serration pattern that will allow aggregate up to 30mm to pass through.



STANDARD MINING

30mm wide & 12mm taller. Imbedded carbide layer adds 72% more carbide to extends bit life.



SHARP

23mm wide, this bit will help break into hard ground while allowing aggregate size to 37mm to pass through.





SNOW BIT™

63mm wide bull nose carbide insert & steel face. This continuous edge system is impact resistant & designed for paved road snow removal.

BORE SAVER[™]

Used to protect adapter board bore holes when not in use.



PENETRATION

Specially design carbide shape that comes to point and a width of 15mm this bit will help break into any surface.

| Aggregate (mm) Pass-Through | Bit Configuration | Bit Width |
|--------------------------------|---|----------------|
| 0 | Wide bits across the board | 63 mm |
| 15 | Alternate Wide and Standard bits | 63 and 30 mm |
| 20 | Alternate Wide and Sharp bits | 63 and 23 mm |
| 25 | Alternate Wide and Penetration bits | 63 and 15.5 mm |
| 32 | Standard bits across the board | 30 mm |
| 34 | Alternated Standard and Sharp bits | 30 and 23 mm |
| 38 | Sharp bits across the board | 23 mm |
| 38 | Alternate Standard and Penetration bits | 30 and 15.5 mm |
| 42 | Alternate Sharp and Penetration bits | 23 and 15.5 mm |
| 46 | Penetration bits across the board | 15.5 mm |
| 64 | Wide bit every other space | 63 mm |

WIDE - 64 mm SERRATION



SHARP - 38 mm SERRATION



WIDE/PENETRATION – 25 mm SERRATION



WIDE – CONTINUOUS EDGE



SNOWBIT - CONTINUOUS EDGE



GRADERBIT2[™] SYSTEM

REMOVAL AND INSTALLATION

Insert bit into board, carbide facing direction of travel



2 Place desired Angle Bracket over bit shaft





Insert pin into Bit pin hole





Insert remaining Bits & Pins









END BIT SYSTEM

PUT AN END TO MOLDBOARD WEAR.

Made of through-hardened DH-2 steel for added strength and service life, Cat end bits protect moldboard edges from wear.

END BIT SYSTEM

Maximize moldboard life and lower repair costs. Use Cat end bits, overlays, repair plates and hardware to protect and repair your moldboards and working edges.



MOLDBOARD END BITS

- » Recommended for all applications
- » Made of through-hardened DH-2 steel for added strength and service life



OVERLAY END BITS

- » Fit over existing end bit
- » Recommended for applications such as ditching
- » Add strength and limit corner wear
- » When worn on one side, overlay end bits can be rotated for a second wear life



MOLDBOARD REPAIR PLATES

- » Extend moldboard life with Cat Moldboard Repair Plates
- » Routine monitoring and timely edge replacement can prevent damage
- » When repair is needed, repair plates provide a way to extend moldboard life



HARDWARE

- » When replacing ground engaging tools, always use Cat hardware regardless of the application
- » Cat Grade 8 hardware is performance-matched to Cat G.E.T. in both strength and durability

RIPPER-SCARIFIER SYSTEM

GET MORE OUT OF YOUR GRADER.

Scarifier and ripper systems on motor graders can be used to improve road surfaces by lifting material from compacted and worn areas or by removing the "crowning" that causes excessive wear on cutting edges.

ENHANCE PRODUCTION

EXTEND VERSATILITY Loosen material to reduce grading time and fill voids while saving on edge wear.

Reduce need for dozer ripping or cutting bit systems.



RIPPER-SCARIFIER COMPONENTS

Scarifiers can be mounted before the blade (V-Block design) or behind the machine (Straight Block design). Rear-mounted ripper-scarifiers are more versatile than forward-mounted configurations. Rip or scarify by changing shank position.



V-BLOCK

- » Loosen compacted surfaces, rocky subgrades and frozen ground
- » Fit ahead of the blade (mid mount)
- » Holds up to 11 shanks and scarifies up to 46" (1168 mm) wide



STRAIGHT BLOCK

- » Low-impact applications and shallow scarifying
- » Higher allowable speed (up to 3rd gear) in shallow
- » Holds up to 17 shanks and scarifies up to 72" (1828 mm) wide
- » May be used as a mid-mount scarifier



SCARIFIER TIPS

- » We offer three types of scarifier tips for surface reconditioning. Tip has a tapered design that secures it to the shank
- » Through-hardened tips for general purpose scarifying
- » Heavy-Duty for deep penetration and extended distances
- » A.R.M. for high-abrasion/low-impact conditions extends tip life 3 to 5 times over through-hardened



SCARIFIER SHANKS

- Through-hardened and tempered to resist wear, bending and breakage
- Front or rear notch for V-Block or Straight Block
- Standard or extended lengths

R SERIES RIPPER TIP OPTIONS

Caterpillar offers three options for the R350 ripper tip size class for 16M and 24M motor graders. Due to the extreme nature of maintaining haul roads, scarifiers are not offered on 16M and 24M.





INSTALLATION & REMOVAL

The R Series Tooth system uses the standard pin and retainer system. The Tooth Pin Remover tool is available to make removal easier.





HYDRAULIC EXCAVATORS

Cat Hydraulic Excavators are the most versatile machines on the jobsite, working in applications ranging from small landscaping projects to large surface extraction mines—and everywhere in between. Together, Cat buckets and G.E.T. make up the only bucket system designed and developed to optimize hydraulic excavator performance and your productivity. Rely on your Cat dealer for expert support and service for your specific application.

SYSTEM OVERVIEW

Hydraulic excavators are extremely versatile machines used for a variety of purposes, from grading to mass excavation to demolition work. A hydraulic excavator's main work tool is a bucket, but these machines can also be equipped with hydraulic couplers to pick up a variety of tools.

Balancing your desired productivity/penetration with the wear life of your system is critical. Excessive wear material can reduce productivity and increase fuel burn. Cat hydraulic excavator buckets and G.E.T. are designed as a balanced system to increase life while minimizing drag.



TIP SELECTION GUIDE

Even though bucket tips come in many shapes and sizes, you don't have to be an expert to choose the right ones. Use the chart below to determine if the material you're digging in is high, medium or low impact and abrasion—then find the balance you need among these three factors:



The ability to withstand digging and penetrating shocks and high breakout forces

The ability to penetrate tough material when it's tightly compacted, rocky or frozen

The ability to withstand wearing, scouring and abrasive action of the material being handled

| | IMPACT (material size) | | ABRASION (tip life) | |
|--------|---|----------------------|------------------------|-------------------|
| | SMALL HEX (311-319) | MEDIUM HEX (320-329) | LARGE HEX (336-390) | |
| LOW | کی ای | 0 - 3″ 0 - 75 mm | 0 - 6" 0 -150 mm | > 1,000 hours |
| MEDIUM | 25 - 75 mm | 3 - 8″ 75 - 200 mm | 6 - 12″ 150 - 300 mm | 250 - 1,000 hours |
| HIGH | 3+" 75 mm+ | 8+" 200 mm+ | 12+" 300 mm+ | < 250 hours |

CAT ADVANSYS[™] TIP & ADAPTER SYSTEM

removal.

BUILT TO DELIVER MAXIMUM PRODUCTIVITY AND THE LOWEST BUCKET LIFECYCLE COST IN THE TOUGHEST APPLICATIONS.

Cat Advansys is built for machine productivity, balancing tip wear material and penetration requirements. Integrated hammerless retention ensures you are back to work in minutes without a separate retainer.

PERFORMANCE & PRODUCTIVITY

Wider top surface reduces drag on the tip and adapter side as the tip moves through the material. Reduced side drag results in less force required to move the hex bucket through the material.

EXTEND BUCKET LIFECYCLE

HANCE JOBSITE

Hammerless system. A 3/4 inch retainer lock requires no special tools for installation and

Adapter design directs material flow over adapter strap, which can extend adapter

service life and bucket lifecycle.

CAT ADVANSYS IS BUILT BY CATERPILLAR AND READILY ADAPTED TO FIT ANY BUCKET IN THE INDUSTRY. Available for 950 through 994 Wheel Loaders and 311 through 390 Hydraulic Excavators.

CAT ADVANSYS TIP OPTIONS

Below are the tip shapes best suited for the wide range of jobsite conditions performed by the hydraulic excavators. We also offer additional Cat Advansys tips more commonly used with wheel loaders. Your Cat dealer can help you choose the one that offers the right balance of penetration and wear life for your application.



protective shield over the component. Typically, the A.R.M. process doubles wear life and can last even longer in some applications.

CAT ADVANSYS HAMMERLESS TIP & ADAPTER SYSTEM

Cast retention pin means no separate retention pin to buy or lose during tip replacements. The tip loads on the adapter nose, never putting the cast retention lugs under stress or wear.



CAT ADVANSYS ADAPTER DESIGN

The tip system design naturally shields the adapter strap even without a wear cap. This allows up to a 25% increase in wear life when compared to K series or other low profile systems.



Cat Advansys improves adapter to tip wear life ratio, and the resulting extension on the bucket life cycle.

Heavy Abrasion and Heavy Penetration tips both have a longer usable wear life, while staying sharper throughout the useful life of the entire tip.



X220 Heavy Abrasion Tip 72% Available Wear Material



X220 Heavy Penetration Tip 60% Available Wear Material



Wider top surface reduces drag on the tip and adapter side as the tip moves through the material. Reduced side drag results in less force required to move the hex bucket through the material.

The asymmetrical design ensures a reliable fit even when the adapter surface becomes worn.

1 This is representative of one customers and wear rates may vary by application

MACHINE COMPATIBILITY

| EXCAVATOR | LINKAGE | SIZE CLASS |
|-----------|-----------------|------------------------------------|
| 315 | N/A | Cat Advansys 80, Cat Advansys 90 |
| 318 | N/A | Cat Advansys 80, Cat Advansys 90 |
| 220 | Reach | Cat Advansys 80, Cat Advansys 90 |
| 320 | Mass Excavation | Cat Advansys 90, Cat Advansys 100 |
| 224 | Reach | Cat Advansys 90, Cat Advansys 100 |
| 524 | Mass Excavation | Cat Advansys 100, Cat Advansys 110 |
| 220 | Reach | Cat Advansys 90, Cat Advansys 100 |
| 323 | Mass Excavation | Cat Advansys 100, Cat Advansys 110 |
| 226 | Reach | Cat Advansys 100, Cat Advansys 110 |
| 000 | Mass Excavation | Cat Advansys 110, Cat Advansys 130 |
| 240 | Reach | Cat Advansys 110, Cat Advansys 130 |
| J+J | Mass Excavation | Cat Advansys 130 |
| 27/ | Reach | Cat Advansys 150 |
| 574 | Mass Excavation | Cat Advansys 170 |
| 300 | Reach | Cat Advansys 150 |
| 530 | Mass Excavation | Cat Advansys 170, Cat Advansys 200 |



K SERIES TIP & ADAPTER SYSTEM

EXCELLENT PENETRATION THROUGH VERTICAL RETENTION AND COMPACT PROFILE.

K Series delivers digging performance throughout the life of the tip with its elliptical adapter nose and vertical retention design. The twist-on fit of the tip and adapter makes installation easier.

IMPROVE YOUR PRODUCTIVITY

STAY SAFE & REDUCE MAINTENANCE COSTS

SIMPLIFY INSTALLATION Low-profile shape provides optimal sharpness, penetration, and digging ability throughout the tip life.

One-piece vertical retainer allows for easy installation and removal.

Rails on both sides of the adapter and a twist-on design hold the tip in place, allowing for quicker installation.

K SERIES DRIVE-THROUGH TIP & ADAPTER SYSTEM

The drive-through system is for K80-K100 adapters and tips.



Drive-through retainer

INSTALLATION & REMOVAL

It's safe and easy—just use a standard pry tool and follow this three-step process:

Scan the QR code to the right to watch the installation video.





K SERIES HAMMERLESS TIP & ADAPTER SYSTEM

The hammerless system is for K110-K170 adapters and tips.



No hole in adapter



* Additional offering only for extreme packing and slag applications.

INSTALLATION & REMOVAL

It's safe and easy—just use a standard pry tool and follow this three-step hammerless process:

Scan the QR code to the right to watch the installation video.





K SERIES TIP OPTIONS

Below are the tip shapes best suited for the wide range of jobsite conditions performed by hydraulic excavators. We also offer additional K Series tips more commonly used with wheel loaders. Your Cat dealer can help you choose the one that offers the right balance of penetration and wear life for your application.

| EXTRA DUTY | » Extra Duty and Extra Duty Abrasion Resistant Material (A.R.M.)* tips include approximately 60% more wear material in the tip body. The A.R.M. wears around the profile to increase penetration. | |
|------------------|---|--|
| GENERAL PURPOSE | » General Purpose tips are symmetrical and the baseline for other tip styles. | |
| | All wear comparisons are to the General Purpose tip unless otherwise noted. | |
| | » Wide tips are used to maintain smooth trench floors and in low-abrasion, easy-to-penetrate material. | |
| PENETRATION PLUS | | |
| | » Penetration Plus tips feature 25% more wear material and a leading edge with 25% less cross-sectional area. They self-sharpen as they wear. | |
| PENETRATION | Penetration tips are ideal for densely compacted materials. They feature a leading edge with 60% less cross-sectional area— allowing for maximum penetration—and a single center rib that self-sharpens as it wears. These tips are available with A.R.M.* | |
| | » Spike tips are used to achieve maximum penetration. They are typically used in cohesive material and stay sharp during the life of the tip. | |
| DOUBLE SPIKE | » Double Spike tips are used in the corner positions with the spike tips for hard-to-penetrate, fracturable materials. | |

* Abrasion Resistant Material (A.R.M.) is a welding process that bonds very hard tungsten carbide particles to Cat G.E.T. to create a protective shield over the component. Typically, the A.R.M. process doubles wear life—and can last even longer in some applications.

K SERIES ADAPTER OPTIONS

All K Series adapters feature rails on both sides of the nose for a twist-on design that stays in place during installation.

MACHINE COMPATIBILITY

| EXCAVATOR | LINKAGE | SIZE CLASS |
|-----------|-----------------|------------|
| 315 | N/A | K80, K90 |
| 318 | N/A | K80, K90 |
| 220 | Reach | K80, K90 |
| 320 | Mass Excavation | K90, K100 |
| 274 | Reach | K90, K100 |
| 524 | Mass Excavation | K100, K110 |
| 220 | Reach | K90, K100 |
| 323 | Mass Excavation | K100, K110 |
| 336 | Reach | K100, K110 |
| 550 | Mass Excavation | K110, K130 |
| 3/10 | Reach | K110, K130 |
| 010 | Mass Excavation | K130 |
| 374 | Reach | K150 |
| | Mass Excavation | K170 |
| 390 | Reach | K150 |
| 550 | Mass Excavation | K170 |



J SERIES TIP & ADAPTER SYSTEM

SIDE-PIN SECURITY WHEN YOUR APPLICATION DEMANDS IT.

Great performance and proven reliability over time—that's what you get with this classic horizontal retention system, a staple in the construction and mining industries.

BOOST YOUR VERSATILITY

ENHANCE YOUR RELIABILITY

IMPROVE SAFETY & MAINTENANCE TIME Industry-standard side-pinned design performs across a variety of applications.

Weld-on adapters offer excellent retention.

Ability to retrofit means you can use the hammerless CapSure™ system.

J SERIES TIP & ADAPTER SYSTEM



INSTALLATION & REMOVAL

Simply use the standard pin and retainer system—and make removal even easier with our Tip Pin Remover tool. *



*J550 and smaller use the pin removal tool. Consult your dealer for larger systems.

J SERIES TIP OPTIONS

Below are the tip shapes best suited for the wide range of jobsite conditions performed by hydraulic excavators. We also offer additional J Series tips more commonly used with wheel loaders. Your Cat dealer can help you choose the one that offers the right balance of penetration and wear life for your application.



*Abrasion Resistant Material (A.R.M.) is a welding process that bonds very hard tungsten carbide particles to Cat G.E.T. to create a protective shield over the component. Typically, the A.R.M. process doubles wear life—and can last even longer in some applications.

GENERAL DUTY TIPS

General Duty tips offer a reliable, competitively priced parts option for small to medium-sized excavators operating in low to medium impact conditions. Tips are available in the J250-J460 size range.

General Duty tips are:

- » A match if you require quality and long wear
- » Designed to fit J Series adapters, reducing risky fit-ups
- » Backed by the standard Caterpillar warranty against breakage under normal, recommended operation in low to medium impact applications

| LONG | » Most versatile shape with good balance of penetration, strength and abrasion resistance. Standard shape for most applications. |
|------------------|--|
| HEAVY DUTY LONG | > Use on larger machines where greater strength is required. More wear material for higher abrasion environments. |
| PENETRATION PLUS | Enhanced penetration in densely compacted material, such as clay. Resists blunting and is self-sharpening. Ideal for tough trenching applications. |

J SERIES MACHINE COMPATIBILITY

| EXCAVATOR | LINKAGE | SIZE CLASS |
|-----------|-----------------|------------------|
| 312 | N/A | J250, J300 |
| 315 | N/A | J300, J350 |
| 318 | N/A | J300, J350 |
| 220 | Reach | J300, J350, J400 |
| 320 | Mass Excavation | J400, J460 |
| 224 | Reach | J400, J460 |
| 324 | Mass Excavation | J460, J550 |
| 220 | Reach | J400, J460 |
| 323 | Mass Excavation | J460, J550 |
| 226 | Reach | J460, J550 |
| 330 | Mass Excavation | J550 |
| 240 | Reach | J550 |
| 343 | Mass Excavation | J550 |
| 274 | Reach | J600 |
| 5/4 | Mass Excavation | J700 |
| 200 | Reach | J600 |
| 330 | Mass Excavation | J700, J800 |

HAMMERLESS TIP & ADAPTER SYSTEM FEATURING CAPSURE RETENTION

LOSE THE HAMMER, NOT THE FLEXIBILITY.

Simplify bucket tip replacement with hammerless CapSure retention. These tips are matched to side-pin adapters, allowing the flexibility to use our conventional pin retention if your application demands it.

LOWER OPERATING COSTS

ENHANCE JOBSITE SAFETY & MAINTENANCE TIME

CHANGE OUT TIPS QUICKLY & EASILY

SPEED UP YOUR INSTALLATION TIME Side-pin retrofit design used on J-style adapters means the pin is reusable.

A ¾-inch retainer lock requires no special tools and allows for hammerless installation and removal.

Positive stop is cast into the tip to prevent over-rotation—just turn 180 degrees to lock or unlock.

Tip and retainer are one system, so there's no special assembly or extra pieces.



HAMMERLESS TIP & ADAPTER SYSTEM FEATURING CAPSURE RETENTION



CAPSURE TIP OPTIONS

We offer four CapSure tip options designed for a range of jobsite conditions. Your Cat dealer can help you choose the one that offers the right balance of penetration and wear life for your application.



MACHINE COMPATIBILITY

| EXCAVATOR | LINKAGE | SIZE CLASS |
|-----------|-----------------|----------------------------------|
| 220 | Reach | N/A |
| 33b | Mass Excavation | J550 (Retrofit) |
| 040 | Reach | J550 (Retrofit) |
| 349 | Mass Excavation | J550 (Retrofit) |
| 974 | Reach | J600 (Retrofit) |
| 3/4 | Mass Excavation | J700 (Retrofit) |
| 200 | Reach | J600 (Retrofit) |
| 390 | Mass Excavation | J700 (Retrofit), J800 (Retrofit) |

BASE EDGE SYSTEMS

FASTEST INSTALLATION TIMES IN THE INDUSTRY.

SAVE INSTALLATION & REPLACEMENT TIME

OPTIMIZE MACHINE PERFORMANCE

Cat base edge systems go through a series of carefully controlled manufacturing processes to deliver maximum strength, durability and long life. They come completely welded and assembled, dramatically shortening your installation and replacement time.

INCREASE DURABILITY

A consistent heat-treat process maximizes strength and resists abrasion. Shot blasting removes impurities that can cause inclusions on a weld, and controlled cooling reduces the chance of stress points.

Butterbead is applied to the back side of the base edge and the top strap of the corner adapter, so you can weld the edge onto the bucket without preheating.

Base edges are designed by Caterpillar engineers for optimal performance on specific machines.

BASE EDGE SYSTEMS

Base edge replacement involves replacing a base edge assembly, which includes adapters welded in from the factory, or replacing a bolt-on cutting edge (BOCE) base edge, which comes with factory-drilled holes for bolt-on G.E.T. Choose from three shapes (base edge for BOCE, straight and spade base edge assemblies) to get the right protection for your application.



Lasers place the adapters within 0.1 mm of specifications.





BUTTERBEAD BASE EDGE ASSEMBLY

DURABLE PROTECTION COMBINED WITH SHORTER INSTALLATION TIMES.

The protection you need, with no preheating required—that's what you get with butterbead weld prep. This technique, which involves applying a layer of weld to a heat-treated, higher hardness part, makes it possible to weld a base edge to a bucket without preheating the hardened part. Choose from two shapes (straight and spade) on cutting edges thicker than 50mm and three levels of build to get the right protection for your application.

SPEED UP YOUR INSTALLATION TIME

Weld prep eliminates the need for preheating, shortening edge installation time by 30-50%.

GET MORE DURABILITY

Base edges have the proper butterbead weld because it is applied in the factory.



BASE EDGE END PROTECTION (BEEP)

PROTECT YOUR CORNERS—WITHOUT CUTTING THEM.

Reduce base edge end wear and subsequent corner adapter weld erosion with our BEEP design. It makes adapter replacement on the edge much easier when it's time to rebuild the base edge assembly. BEEPs are available in a wide array of thicknesses and angles to fit 336-390 hydraulic excavators.

BOOST YOUR UPTIME

EXTEND LIFE

SPEED UP INSTALLATION Through-hardened Rc ~45 (Br ~3.0) weldable steel is easily installed in the shop or the field.

Extended base edge end protects adapter corner welds.

Height and bevel are matched to the base edge, so there's no additional fabrication.





SIDE & EDGE PROTECTION

MAINTAIN YOUR PERFORMANCE EDGE.

Protect your bucket's structural integrity with sidebar protectors and shear blocks or increase penetration and performance with side cutters.

- » Sidebar Protectors
- » Side Cutters
- » Half Arrows
- » Top Covers
- » Cutting Edges
- » Weld-On Edge Shrouds

SIDEBAR PROTECTORS

Protect your bucket's structural integrity with sidebars and shear blocks.

INCREASE YOUR UPTIME

CUT YOUR MAINTENANCE COSTS

Shear block protects the pin from extreme loads and breakage, helping ensure sidebar protector retention.

Sidebar protector protects the bucket edge.


SIDECUTTERS

Improve your bucket's performance while protecting your sidebars.





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 the sidebar for enhanced protection of the bucket.
- » Scalloped profile improves bucket penetration and machine performance.

STRIKEOFF SIDECUTTER

- » Half arrow shape to provide better penetration than bare bucket.
- » Protects the lower bucket sides and corners.
- » For use in moderate-to-light conditions.
- » Can be stacked for more protection.

BOLT-ON HALF ARROWS, TOP COVERS, CUTTING EDGES & WELD-ON SHROUDS

Protect your investment in buckets and base edges with these flexible components. Half arrows allow for a smooth transition of material over the base edge to protect the leading edge. Top covers complement the half arrows to protect the base edge fully. Modular edge shrouds are designed to fit any bucket configuration and extend the life of your excavator bucket edge assembly.

SIMPLIFY MAINTENANCE

ENHANCE DURABILITY

BOOST YOUR UPTIME Individual pieces that protect the edge can be changed independently.

Half arrows cover the leading edge for smooth material transition.

Top cover reduces wear on weld joints.



BUCKET SELECTION GUIDE

We offer four standard bucket durability categories suitable for any application. Each category is based on the bucket's intended durability when used in the recommended application and material.



GENERAL DUTY

 » 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.



HEAVY DUTY

- » 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.
- » HD buckets are a good "center line" choice, or starting point, when application conditions are not well known.



SEVERE DUTY

» 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.

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.



Typical 336-349 bucket

CHOOSING THE RIGHT DURABILITY.

Choosing the wrong bucket can easily reduce production and increase operating costs 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.



ADDITIONAL BUCKET STYLES

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.

Tilt Buckets feature a full 45° of tilt in each direction, powered by two doubleacting cylinders. Tilt Buckets are available for 311-329 excavators.



CENTER-LOCK[™] 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.

Center-Lock 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 are improved over a standard bucket in a similar application.

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



WIDE TIP

Wide Tip Buckets are intended to perform best in low-impact materials such as dirt and loam where leaving a smoother floor and minimal spillage is necessary. The bucket is engineered to be used exclusively with Cat Wide Tips. Corner adapters face straight forward to create a smooth edge.

General Duty Wide Tip Buckets are available in widths from 24" to 78" for 311-349 excavators.



HIGH CAPACITY

High Capacity Buckets are designed and built for use in high-production truckloading 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.

CAT DEALER & BUCKET MANAGEMENT

CHOOSING CAT G.E.T. IS EASY.

Your Cat dealer makes it easy to choose the right G.E.T. for your machines and applications. In addition to a broad portfolio of products, your dealer offers the sales, service and technical support you need to keep productivity high and operating costs low. Trust your Cat dealer to:

MAXIMIZE PRODUCTIVITY

IMPROVE PERFORMANCE

SIMPLIFY MAINTENANCE

MANAGE WEAR

Buckets and G.E.T. products are designed to meet your application requirements, rather than simply fit onto your machine.

Get the most out of your bucket and G.E.T. with expert advice that helps you lower costs and reduce unscheduled maintenance.

Tailored G.E.T. systems simplify your maintenance. We develop solutions that fit your expectations, including custom products.

Intuitive Cat Inspect bucket inspection programs help you monitor how your G.E.T. system is wearing so you can adapt to changes in application and operation.



Talk to your Product Support Representative or G.E.T. specialist today to learn how they can help you simplify your bucket management by using Cat Inspect.

HYDRAULIC EXCAVATOR (HEX) RIP AND LOAD

Using rippers mounted on large hex is a cost-effective alternative to blasting in quarries and site development. In site development, rippers on smaller excavators and backhoe loaders can readily deal with asphalt, caliche and frozen ground.



EXTEND

INCREASE DURABILITY Increase productivity by adding efficiency and flexibility to your operation.

A through-hardened hammerless wear tip and shank protector extend wear life.

Upsized, hammerless adapters and tips accommodate higher loads and abrasion, while edge segments and top covers protect your base edge.

100

RIPPER-TO-BUCKET CHANGES ARE MADE HYDRAULICALLY IN LESS THAN 35 SECONDS. This gives the operator complete flexibility to continually adjust ripping, sorting and loading work.

SIMPLE CHANGES

BLAST FREE Pull material down and change bucket quickly and easily.

Ripper allows you to work without blasting in areas with unstable land or sound regulations.



WHEEL LOADERS (950-994)

STRENGTH. DURABILITY. LONG LIFE. PLUS EVERYTHING YOU NEED TO BOOST UPTIME ON YOUR JOB.

For wheel loaders, you can choose from Cat Advansys, K Series, J Series and Hammerless Tip & Adapter Systems, each available with multiple tip options for a range of jobsite conditions. Optimize your machine's productivity in every jobsite condition with the wide range of G.E.T. products available. Cat buckets and G.E.T. make up the only bucket system designed and developed to maximize the performance and productivity of your Cat wheel loader.

TIP SELECTION GUIDE

Even though bucket tips come in many shapes and sizes, you don't have to be an expert to choose the right ones. Use the chart below to determine if the material you're digging in is high, medium or low impact and abrasion—then find the balance you need among these three factors:



| | 988-994 WHEEL LOADERS IMPACT (material size) | 950-982 WHEEL LOADERS IMPACT (material size) | 950-994 WHEEL LOADERS ABRASION (tip life) |
|--------|---|---|--|
| LOW | 0-6" 0-152mm | 0-4" 0-102mm | > 1,000 hours |
| MEDIUM | 6-18" 152-457mm | 4-12" 102-305mm | 250 -1,000 hours |
| HIGH | 18"+ 457mm+ | 12"+ 305mm+ | < 250 hours |

CAT ADVANSYS TIP & ADAPTER SYSTEM

BUILT TO DELIVER MAXIMUM PRODUCTIVITY AND THE LOWEST BUCKET LIFECYCLE COST IN THE TOUGHEST APPLICATIONS.

Cat Advansys is built for machine productivity, balancing tip wear material and penetration requirements. Integrated hammerless retention ensures you are back to work in minutes without a separate retainer.

PERFORMANCE & PRODUCTIVITY

EXTEND BUCKET LIFECYCLE

ENHANCE JOBSITE SAFETY Heavy Abrasion and Heavy Penetration designs have more usable wear material while maintaining profile during the full life of the tip.

Adapter design directs material flow over adapter strap, which can extend adapter service life and bucket lifecycle.

Hammerless system. A 3/4 inch retainer lock requires no special tools for installation and removal.

WHEEL LOADERS 84

CAT ADVANSYS TIP OPTIONS

Below are the tip shapes best suited for the wide range of jobsite conditions performed by large wheel loaders. We also offer additional Cat Advansys tips more commonly used with excavators. Your Cat dealer can help you choose the one that offers the right balance of penetration and wear life for your application.



BRASION

CAT ADVANSYS HAMMERLESS TIP & ADAPTER SYSTEM

Cast retention pin means no separate retention pin to buy or lose during tip replacements. The tip loads on the adapter nose, never putting the cast retention lugs under stress or wear.



Hammerless Fast Installation and Removal

CHANGE OUT TIPS QUICKLY & EASILY

CapSure hammerless retention requires no special tools. Just turn the retainer 180° to install or remove the tips. Scan the QR Code to the right to watch the installation video.



Turn retainer 180° clockwise to lock.



Turn retainer 180° counter clockwise to unlock..



CAT ADVANSYS ADAPTER SYSTEM



NOSE GEOMETRY DESIGN FEATURES

- Asymmetrical nose geometry reduces sliding wear on adapter nose surfaces, extending the life of the adapter.
- The asymmetrical design ensures a reliable fit even when the adapter surface becomes worn.

Four adapter styles cover the entire wheel loader product range.

994/994K ADAPTER WEAR CAP SYSTEM

- » Adapter cover protects the adapter and welds in high-abrasion applications like granite and iron ore.
- » Allows for more penetration.



FLUSH-MOUNT (SHOWN WITH OPTIONAL COVER)

- » 360-degree weld around the adapter provides 20 percent more weld strength than a two-strap system.
- » Adapter cover and half-arrow segment create a flush surface to keep the quarry floor clean, reducing potential tire damage.
- » Adapter cover protects the adapter and welds in high-abrasion applications like granite and iron ore.
- » Features a higher profile, which can affect penetration.



TWO-STRAP

- » Features a lower profile than the flush-mount adapter.
- » Allows for more penetration.
- » Available with Abrasion Resistant Material (A.R.M.).





BOLT-ON

» Gives you the flexibility to switch between cutting edge or teeth when you need more penetration (such as a frozen pile).

CAT ADVANSYS TIP SYSTEM DESIGN

The tip system design naturally shields the adapter strap even without a wear cap. This allows up to a 25% increase in wear life when compared to K series or other low profile systems.



Cat Advansys can improve tip to adapter wear life ratio. Extending your adapter life can mean fewer replacements during the bucket life cycle.

Heavy Abrasion and Heavy Penetration tips both have a longer usable wear life, while staying sharper throughout the useful life of the entire tip.



MACHINE COMPATIBILITY

| WHEEL LOADER | SIZE CLASS | ADAPTERS AVAILABLE |
|---------------|--|--|
| 950, 962 | Cat Advansys 80, 90 Cat Advansys 90 | Bolt-on, Flush-Mount with Adapter Cover, Two-Strap with Top Cover |
| 966, 972 | Cat Advansys 90 | Bolt-on, Flush-Mount with Adapter Cover, Two-Strap with Top Cover |
| 980, 982 | Cat Advansys 100 | Bolt-on, Flush-Mount with Adapter Cover, Two-Strap with Top Cover |
| 986, 988 | Cat Advansys 110 | Bolt-on, Flush-Mount with Adapter Cover, Two-Strap with Top Cover |
| 988, 992 | Cat Advansys 130 | Flush-Mount with Adapter Cover, Two-Strap with Top Cover |
| 992, 993, 994 | Cat Advansys 150 | Flush-Mount with Adapter Cover, Two-Strap with Top Cover |
| 994 | Cat Advansys 200 | Two-Strap with Wear Cap System |
| 994K | Cat Advansys 220 | Two-Strap with Wear Cap System |



K SERIES TIP & ADAPTER SYSTEM

EXCELLENT PENETRATION THROUGH VERTICAL RETENTION AND COMPACT PROFILE.

K Series delivers digging performance throughout the life of the tip with its elliptical adapter nose and vertical retention design. The twist-on fit of the tip and adapter makes installation easier.

IMPROVE YOUR PRODUCTIVITY

STAY SAFE & REDUCE MAINTENANCE COSTS

SIMPLIFY INSTALLATION

Low-profile shape provides optimal sharpness, penetration, and digging ability throughout the tip life.

One-piece vertical retainer allows for easy installation and removal.

Rails on both sides of the adapter and a twist-on design hold the tip in place, allowing for quicker installation.

TERPILL

K SERIES TIP OPTIONS

Below are the tip shapes best suited for the wide range of jobsite conditions performed by large wheel loaders. We also offer additional K Series tips more commonly used with excavators. Your Cat dealer can help you choose the one that offers the right balance of penetration and wear life for your application.



*Abrasion Resistant Material (A.R.M.) is a welding process that bonds very hard tungsten carbide particles to Cat G.E.T. to create a protective shield over the component. Typically, the A.R.M. process doubles wear life—and can last even longer in some applications.

K SERIES DRIVE-THROUGH TIP & ADAPTER SYSTEM

The drive-through system is for K80-K100 adapters and tips.



INSTALLATION & REMOVAL

It's safe and easy—just use a standard pry tool and follow this three-step process:

Scan the QR code to the right to watch the installation video.





K SERIES TIP HAMMERLESS TIP & ADAPTER SYSTEM

The hammerless system is for K110-K170 adapters and tips.



INSTALLATION & REMOVAL

It's safe and easy—just use a standard pry tool and follow this three-step hammerless process:

To watch the installation video go to www.youtube.com/ watch?v=xKWedWjV6nl or by scanning the QR code to the right.





K SERIES ADAPTER OPTIONS

All K Series adapters feature rails on both sides of the nose for a twist-on design that stays in place during installation.



FLUSH-MOUNT (SHOWN WITH OPTIONAL COVER)

- » 360-degree weld around the adapter provides 20 percent more weld strength than a two-strap system.
- » Adapter cover and half-arrow segment create a flush surface to keep the quarry floor clean, reducing potential tire damage.
- » Adapter cover protects the adapter and welds in high-abrasion applications like granite and iron ore.
- » Features a higher profile, which can affect penetration.



TWO-STRAP

» Features a lower profile than the flush-mount adapter.



» Available with Abrasion Resistant Material.



BOLT-ON

» Gives you the flexibility to switch between cutting edge or teeth when you need more penetration (such as a frozen pile).

K SERIES

| WHEEL LOADER | SIZE CLASS | BUCKET TYPE / ADAPTERS AVAILABLE |
|---------------|------------|-------------------------------------|
| 050 062 | K80 | Material handling,GD |
| 330, 302 | K90 | Rock |
| 966, 972 | K90 | Material handling,GD, rock, HD rock |
| 972 | K100 | Slag |
| 000 000 | K100 | Material handling,GD, rock |
| 980, 982 | K110 | HD quarry rock |
| 980 | K130 | Slag |
| 988 | K110 | Flush-Mount, Two-Strap, Bolt |
| 988, 990 | K130 | Flush-Mount, Two-Strap |
| 990, 992 | K150 | Flush-Mount, Two-Strap |
| 992, 993, 994 | K170 | Two-Strap |

J SERIES

| WHEEL LOADER | SIZE CLASS | BUCKET TYPE / ADAPTERS AVAILABLE |
|--------------|------------|--|
| 050.000 | J300 | Material handling,GD |
| 900, 902 | J350 | Rock |
| 966 | J350 | Material handling,GD, rock, HD rock |
| 070 | J350 | Material handling,GD, rock, HD rock |
| 972 | J400 | Slag |
| 980 | J400 | Material handling, GD, rock |
| 980, 982 | J460 | HD quarry rock |
| 980 | J550 | Slag |
| 982 | J400 | Material handling, GD, rock |
| 988 | J550 | Flush-Mount, Two-Strap, Bolt |
| 990 | J600 | Flush-Mount, Two-Strap |
| 992 | J700 | Flush-Mount, Two-Strap |
| 994 | J800 | Flush-Mount, Two-Strap, Mechanically Attached Adapter |

J SERIES TIP & ADAPTER SYSTEM

SIDE-PIN SECURITY WHEN YOUR APPLICATION DEMANDS IT.

Great performance and proven reliability over time—that's what you get with this classic horizontal retention system, a staple in the mining industry.

BOOST YOUR VERSATILITY

ENHANCE YOUR RELIABILITY

IMPROVE SAFETY & MAINTENANCE TIME

Industry-standard side-pinned design performs across a variety of applications.

Weld-on adapters offer excellent retention.

Ability to retrofit means you can use the hammerless CapSure™ system.



J SERIES TIP & ADAPTER SYSTEM



INSTALLATION & REMOVAL

Simply use the standard pin and retainer system—and make removal even easier with our Tip Pin Remover tool.*

Place the tool on the tip and align the extractor with the pin.







*Models 992 and down use Tip Pin Remover tool. Consult your dealer for larger machines.

Place the tool over the tip (A), locate the pin in the hole of the holder (B) and strike the tool (C).



J SERIES TIP OPTIONS

Below are the tip shapes best suited for the wide range of jobsite conditions performed by large wheel loaders. We offer additional J Series tips more commonly used with excavators. Your Cat dealer can help you choose the one that offers the right balance of penetration and wear life for your application.

| | HEAVY DUTY ABRASION | » Heavy Duty Abrasion tips are ideal for high-abrasion applications like sand, gravel and shot rock. They feature the maximum amount of wear material— approximately 145 percent more—and the tip base has 35 percent more surface area than Heavy Duty Penetration tips. |
|----------|---------------------|--|
| | HEAVY PENETRATION | » Heavy Penetration tips are ideal for high-impact, hard-to-penetrate materials. They feature approximately 120 percent more material in the high wear area, and the spade design has 70 percent less edge area than Heavy Duty Abrasion tips. |
| | HEAVY DUTY LONG | Heavy Duty Long and Heavy Duty Abrasion Resistant Material (A.R.M.)* tips include approximately 60 percent more wear material in the tip body. The A.R.M. wears around the profile to increase penetration. |
| | LONG | » Long tips are symmetrical and the baseline for other tip styles. All wear comparisons are to the Long tip unless otherwise noted. |
| | PENETRATION PLUS | » Penetration Plus tips feature 30 percent more wear material and 25 percent less cross-sectional area. They self-sharpen as they wear. |
| | PENETRATION | Penetration and Penetration A.R.M.* tips are ideal for densely compacted materials. They feature a leading edge with approximately 50 percent less cross-sectional area and a single center rib for strength—allowing for maximum penetration. |
| IMPACT • | ROCK CHISEL | » Rock Chisel tips are Heavy Duty Long tips ideal for high-impact and high- abrasion applications, such as granite. Additional length and wear material in the body helps retain the chisel shape throughout tip life. |

*Abrasion Resistant Material (A.R.M.) is a welding process that bonds very hard tungsten carbide particles to Cat G.E.T. to create a protective shield over the component. Typically, the A.R.M. process doubles wear life—and can last even longer in some applications.

J SERIES ADAPTER OPTIONS

J Series adapters use a classic side-pinned retention system for proven, reliable performance.



FLUSH-MOUNT WITH TOP COVER

- » 360-degree weld around the adapter provides 20 percent more weld strength than a two-strap system.
- » Adapter cover and half-arrow segment create a flush surface to keep the quarry floor clean, reducing potential tire damage.
- » Adapter cover protects the adapter and welds in high-abrasion applications like granite and iron ore.



TWO-STRAP

- » Offers a lower profile than flush-mount adapters.
- » Allows for more penetration and higher productivity.
- » Available with Abrasion Resistant Material.



TWO-STRAP BOLT-ON

- » Used on 988 wheel loaders for surge or stock piles.
- » Gives you the flexibility to switch between cutting edge or teeth when you need more penetration (such as a frozen pile).



MECHANICALLY ATTACHED ADAPTER

- » Used on 994 wheel loader for mechanically attached edges.
- » Requires a C-clamp retainer.

| WHEEL LOADER | SIZE CLASS | ADAPTERS AVAILABLE |
|--------------|------------|------------------------|
| 988 | J550 | Flush-Mount, Two-Strap |
| 990 | J600 | Flush-Mount, Two-Strap |
| 992 | J700 | Flush-Mount, Two-Strap |
| 994 | J800 | Two-Strap |

HAMMERLESS SERIES TIP & ADAPTER SYSTEM FEATURING CAPSURE RETENTION

LOSE THE HAMMER, NOT THE FLEXIBILITY.

Simplify bucket tip replacement with hammerless CapSure retention. These tips are matched to side-pin adapters, allowing the flexibility to use our conventional pin retention if your application demands it.

LOWER OPERATING COSTS

ENHANCE JOBSITE SAFETY & MAINTENANCE TIME

CHANGE OUT TIPS QUICKLY & EASILY

SPEED UP YOUR INSTALLATION TIME Side-pin retrofit design used on J-style adapters means the pin is reusable.

A ¾-inch retainer lock requires no special tools and allows for hammerless installation and removal.

Positive stop is cast into the tip to prevent over-rotation—just turn 180 degrees to lock or unlock.

Tip and retainer are one system, so there's no special assembly or extra pieces.

HAMMERLESS SERIES TIP & ADAPTER SYSTEM FEATURING CAPSURE RETENTION



CAPSURE TIP OPTIONS

We offer four CapSure tip options designed for a range of jobsite conditions. Your Cat dealer can help you choose the one that offers the right balance of penetration and wear life for your application.



OUR J SERIES ADAPTERS ARE MATCHED WITH HAMMERLESS SERIES TIPS

You can choose hammerless or positive pin systems—giving you the flexibility you need when you need it. Full details about J Series adapters can be found on page 18.



FLUSH-MOUNT WITH TOP COVER



TWO-STRAP



TWO-STRAP BOLT-ON



MECHANICALLY ATTACHED ADAPTER



BASE EDGE SYSTEMS

FASTEST INSTALLATION TIMES IN THE INDUSTRY.

Cat base edge systems go through a series of carefully controlled manufacturing processes to deliver maximum strength, durability and long life. They come completely welded and assembled with no need for preheating, dramatically shortening your installation and replacement time.

INCREASE DURABILITY

A consistent heat-treat process maximizes strength and resists abrasion. Shot blasting removes impurities that can cause inclusions on a weld, and controlled cooling reduces the chance of stress points.

SAVE INSTALLATION & REPLACEMENT TIME

Butterbead is applied to the back side of the base edge and the top strap of the corner adapter, so you can weld the edge onto the bucket without preheating.

OPTIMIZE MACHINE PERFORMANCE

Base edges are designed by Caterpillar engineers for optimal performance on specific machines.

BASE EDGE SYSTEMS

Base edge replacement for 988-994 wheel loaders usually involves a base edge assembly, which is a base edge with adapters welded in place at the factory. Choose from three shapes (straight, spade and stepped spade) and three levels of build to get the right protection for your application.



Lasers place the adapters within 0.1mm of specifications.



STRAIGHT



SPADE



STEPPED SPADE



BUTTERBEAD BASE EDGE ASSEMBLY

DURABLE PROTECTION COMBINED WITH SHORTER INSTALLATION TIMES.

The protection you need, with no preheating required—that's what you get with butterbead weld prep. This technique, which involves applying a layer of weld to a heat-treated, higher hardness part, makes it possible to weld a base edge to a bucket without preheating the hardened part. Choose from three shapes (straight, spade and stepped spade) and three levels of build to get the right protection for your application.

SPEED UP YOUR INSTALLATION TIME

Weld prep eliminates the need for preheating, shortening edge installation time by 30-50 percent.

GET MORE DURABILITY

Base edges have the proper butterbead weld because it is applied in the factory.



BUTTERBEAD BASE EDGE ASSEMBLY

The chart below shows how much time and money you can save by using Cat base edges prepared with butterbead weld. All 988-994 large wheel loaders have butterbead base edge offerings.

| BASE EDGE THICKNESS (mm) | TIME SAVED (hours) |
|--------------------------|--------------------|
| < 40 | 3 to 6 |
| 40 - 50 | 8 to 12 |
| 50 - 60 | 12 to 16 |
| > 65 | 16 to 20 |



MECHANICALLY ATTACHED ADAPTER SYSTEM (MAA)

ADAPTER RETENTION WITH NO HAMMERS OR WELDING.

Featuring side-pin adapters and CapSure G.E.T. components, our MAA system uses a bolt-in wedge method to tighten a C-clamp, which locks the adapter securely in place every time.

CHANGE ADAPTERS FASTER

IMPROVE SAFETY ON YOUR JOBSITE

LOWER YOUR OPERATING COSTS Hammerless system reduces change time to less than 60 minutes—70 percent quicker than welded systems.

Bolt-in design eliminates the need for welding and sledgehammers.

Full base edge protection reduces wear.


MECHANICALLY ATTACHED ADAPTER SYSTEM (MAA)



C-clamp secures MAA to the base edge.



C-clamp uses a wedge system to adjust tension.

FLUSH-MOUNT ADAPTER SYSTEM

MORE UPTIME AND PRODUCTIVITY ON YOUR JOB.

Our flush-mount adapter system is ideal for high-impact, high-abrasion applications. The larger adapter and cover offer greater durability and more wear protection than a traditional two-strap system.

GET IMPROVED ADAPTER LIFE

ENHANCE DURABILITY

BOOST UPTIME

SPEED UP CHANGE-OUT TIMES

INCREASE PRODUCTION

Upsized adapter resists impact better than a two-strap system.

A 35-degree bevel on the adapter and base edge provides a thicker edge section to reduce cracks and breakage.

Complete weld-around design provides 20 percent more weld strength than a two-strap system.

Cover protects the adapter and welds.

Adapter cover matches half arrow thickness, providing a flat, clean floor.



FLUSH-MOUNT ADAPTER SYSTEM

NOTE: Investing in additional protection up front provides lower G.E.T. cost during production. Reduced maintenance intervals usually outweigh any penetration differences.





Strap is welded, even under the adapter.





SERRATED EDGE SYSTEM

PENETRATES LIKE A TIP, WITH NO ADAPTER REQUIRED.

The serrated cutting edge increases the penetration capabilities of wheel loaders in highly compacted soil or in applications that have higher impact loading requirements. This lends greater versatility to the machine without requiring bucket changes or the addition of other G.E.T. to the existing bucket.

SHORTEN YOUR DIGGING CYCLES

SIMPLIFY MAINTENANCE

REDUCE YOUR REPAIR COSTS

ENHANCE DURABILITY

Self-sharpening chamfers provide the best possible penetration.

Flat floor offers easy cleanup on your jobsite.

Bolt-on segments mean no welding, so you only need to replace worn sections (988H and 990H only). *See page 32 for example bucket.

One-piece edge means no loose parts or parts falling into crushers (988H, 990H and 992G only). *See image below for example bucket.



SERRATED EDGE SYSTEM





BOLT-ON CUTTING EDGES (BOCE)

BALANCED EDGE SYSTEMS FOR EVERY APPLICATION.

Finding the best solution for your bucket and application is easy with Cat's broad portfolio of edge options. Increase your machine's productivity by reducing operating costs and maintenance interval costs.

Cat bolt-on cutting edge options are available in standard and heavy-duty thicknesses, Cat Abrasion Resistant Material (A.R.M.) and half arrow options. Cat A.R.M. is recommended for applications where sand, gravel or other abrasive materials severely diminish wear life. Hard tungsten carbide particles are bonded to critical wear areas, providing up to five times greater wear life. See your Cat dealer for details.

We have G.E.T. for your bucket, no matter the application or environment. Maximum wear life and breakage resistance is possible with our steel alloy that can endure 2 times the heat and pressure of traditional cutting edge steel products. Consult your local Cat dealer to help determine the best cutting edge system for your application to give you the lowest cost per hour.



HEAVY DUTY BOCE

- » 5mm thicker edge thickness delivering increased wear life.
- » Medium- to high-impact, medium-abrasion materials.

ABRASION RESISTANT BOCE







- » Protects the front of your base edge as well as the bottom.
- » For use in high-abrasion, high-impact materials.

TOP COVER



- » Protects the bevel and top of your base edge.
- » Use with half arrows to fully protect your base edge investment.

SERRATED BOCE



- » Increases the penetration of your bolt-on edge system.
- » For use in packed or frozen materials.
- » Maintains smooth floor.

CAPSURE SHROUDS

Shorten change-out time without sacrificing base edge protection with these easy-to-install shrouds, available in a range of thicknesses and angles. Hammerless CapSure retention shrouds were designed for high-abrasion bucket systems. Most shrouds fit to base edges that have a 35-degree bevel angle and are equipped with flush-mount adapters. Shrouds can be matched with J or K Series adapters.

SPEED UP YOUR CHANGE-OUT TIME

SIMPLIFY REMOVAL & INSTALLATION

BOOST YOUR UPTIME

LOWER YOUR OWNING & OPERATING COSTS

It's easier to install a single casting than two-piece protection.

Hammerless system is fast and easy and reduces the risk of injury.

Wear indicator holes signal change-out time, so you can plan maintenance.

Pin lug is reusable.



TOP COVERS, SEGMENTS & HALF ARROW SEGMENTS

Protect your investment in buckets and base edges with these flexible components. Half arrow segments allow for a smooth transition of material over the base edge to protect the leading edge. Top covers complement the half arrow segments to protect the base edge fully. And segments are ideal for moving re-handled materials with medium impact and medium abrasion.

SIMPLIFY MAINTENANCE

ENHANCE DURABILITY

BOOST YOUR UPTIME

SAVE ON INVENTORY COSTS

Individual pieces that protect the edge can be changed independently.

Half arrow segments cover the leading edge for smooth material transition.

Top cover reduces wear on weld joints.

Reversible segment creates more leading edge wear material, reducing piece parts.



BASE EDGE END PROTECTION (BEEP)

PROTECT YOUR CORNERS—WITHOUT CUTTING THEM.

Reduce base edge end wear and subsequent corner adapter weld erosion with our BEEP design. It makes adapter replacement on the edge much easier when it's time to rebuild the base edge assembly.

BOOST YOUR UPTIME

EXTEND LIFE

SPEED UP INSTALLATION Through-hardened Rc ~45 (Br ~3.0) weldable steel is easily installed in the shop or the field.

Extended base edge end protects adapter corner welds.

Height and bevel are matched to the base edge, so there's no additional fabrication.



BASE EDGE END PROTECTION SYSTEM (BEEP)

BEEPs are available in a wide array of thicknesses and angles to fit 988-994 wheel loaders. Use this height, length and bevel angle chart to determine which BEEP best matches your base edge end profile.

| HEIGHT (H) | LENGTH (L) | BEVEL (Bv) | BLUNT HEIGHT (Hb) | THICKNESS (T) | |
|------------|------------|------------|----------------------|---------------|--|
| 50 | 355 | 22.5 | 15 | 25 | |
| 63.5 | 336 | 22.5 | 22 | 30 | |
| 63.5 | 355 | 22.5 | | 30 | |
| 63.5 | 331 | 35 | 33 | 30 | |
| 70 | 325 | 22.5 | 30 | 30 | |
| 70 | 384 | 35 | 35 | 30 | |
| 70 | 456 | 35 | 35 | 30 | |
| 70 | 370 | 35 | 35 | 30 | |
| 76 | 308 | 22.5 | 24 | 30 | |
| 76 | 384 | 35 | 35 | 30 | |
| 90 | 400 | 35 | 35 | 40 | |
| 90 | 369 | 35 | 35 | 40 | |



SIDE & EDGE PROTECTION

MAINTAIN YOUR PERFORMANCE EDGE.

Protect your bucket's structural integrity and enhance penetration with sidebar protection and shear blocks.

A game - In Total - Simple and

- » Sidebar Protectors (CapSure and traditional locking system)
- » Half Arrows
- » Top Covers
- » Segments

S MITTING A

» CapSure Shrouds

SIDEBAR PROTECTORS

Protect your bucket's structural integrity and enhance penetration with sidebars and shear blocks.

INCREASE YOUR UPTIME

CUT YOUR MAINTENANCE COSTS

Shear block protects the pin from extreme loads and breakage, helping ensure sidebar protector retention.

Sidebar protector protects the bucket edge.



CAPSURE SIDEBAR PROTECTORS

Get all the benefits of the sidebar protector without the hammer. CapSure sidebar protectors use hammerless locks for fast, easy installation and reduce the risk of injury.





Shear Block

PERFORMANCE SERIES SIDEBAR PROTECTORS

INSTALLATION & REMOVAL

Get all the benefits of the sidebar protector without the hammer. Performance Series Mechanically Attached sidebar protectors use proven hammerless spring retainers for fast, easy installation and reduce the risk of injury.



Mechanically attached wear plate compression retainer.









CORNER GUARD SYSTEM

Reduce your bucket's maintenance costs and increase bucket performance with the Cat Corner Guard system. Cat corner guards are an easily replaced bolt-on system to fit your 950-982 wheel loader buckets. These corner guards are available with and without adapters to fit your application needs.



Slide the corner guard into place.



Torque, Bang, Torque bolts to the proper bolt torque.







BUCKET SELECTION GUIDE

We offer four standard bucket durability categories suitable for any application. Each category is based on the bucket's intended durability when used in the recommended application and material.

GENERAL PURPOSE



MATERIAL HANDLING



ROCK BUCKETS



HEAVY DUTY QUARRY ROCK BUCKET



- » Good all around performance for stockpiling, re-handling, excavating and bank loading.
- » Intended for use in low-impact materials.
- » For stockpile loading loose materials such as gravel, sand and dirt in load-and-carry applications.
- » Intended for use in low-impact materials.
- » These are the best performers for production loading.
- » Flat bottom bucket.
- » For use in applications such as face loading limestone and other unprocessed rock. Also used in truck and hopper loading for a wide range of quarry materials.
- » Intended for use in moderate- to high-abrasion applications.
- » Balances the need for high production in more abrasive applications.
- » For use where maximum abrasion resistance is required.
- » Intended for use in high-abrasion, high-impact applications.

CHOOSING THE RIGHT DURABILITY.

Choosing the wrong bucket can easily reduce production and increase operating costs 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 wheel loader, bucket and work tool attachment combinations to meet your application needs.



ADDITIONAL BUCKET STYLES

Several different bucket styles are available—each with a special purpose:



COAL: Coal Buckets are high-volume material movers for loading and stockpiling coal and other materials of similar density.



GRAPPLE: Grapple Buckets clamp loose material with dual ladderstyle grapple tines. These are key producers in transfer stations, landfills or wherever loose, lightweight material needs to be moved.



HIGH DUMP: High Dump Buckets utilize dedicated dumping cylinders and a bottom hinge to "roll out" material. Higher than ordinary bucket types, they are ideal for transfer stations or loading high-sided trucks.



MULTI-PURPOSE: Multi-Purpose Buckets have a unique action that can load, bulldoze, clamp and perform many other tasks. A versatile design for site cleanup, demolition or similar situations.



SIDE DUMP: Side Dump Buckets dump both to the front and to the side of the machine, an advantage when working in tight quarters such as street work, tunnel construction and building levees.

ADDITIONAL BUCKET STYLES (CONT.)



SLAG: Cat Slag Buckets are heavy duty and specifically constructed to handle extreme conditions that come with handling hot slag.



WASTE HANDLING: Waste Handling Buckets move large volumes of low-density waste in transfer stations, landfills and recycling yards. Large capacities give maximum production when loading conveyors, trucks or hoppers.



WASTE LOAD & CARRY: Load & Carry Buckets are primarily designed to load and carry lightweight material, minimizing contact with the floor for less bucket and floor wear.



WASTE DOZING: Dozing Buckets are designed to push waste loads along the floor to a hole or hopper in the floor for below—grade truck loading.



WOODCHIP: As the name suggests, Woodchip Buckets are optimized for moving large volumes of wood chips. The flat floor and straight edge work to scoop the bucket full and help heap the load high.

CAT WEAR MANAGEMENT SYSTEM INTRODUCES...

BUCKET PRO



You may be familiar with CTS Pro for Cat Undercarriage Inspections. Now, the Cat Wear Management System is launching the second module to help you manage G.E.T. on your bucket fleet.



Your Cat dealer offers sales, service and technical support you need to keep your bucket at maximum productivity.

- Work with your Cat Dealer to set up your site and bucket fleet within the Bucket Pro App.
- Use smart phone, IPad, or tablet to perform regular inspections of G.E.T. and get instant reports.
- Go online to calculate costs and view production trends of each bucket.
- Use data to reduce costs and improve production of your G.E.T. system.

USING BUCKET PRO, YOUR DEALER CAN PROVIDE:

» G.E.T. Inspection Reports These instant, on-site reports include % worn, future change out dates, and average life of all your G.E.T. components.

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| | 1 | Normal Wear | 3.4 | 31 | 01Mar18 | 30Mar18 | 800 | 558 | i i | 30 |
| _ | 21 | Normet Wear | 14 | .31 | UtMarte | 30Martil | 805 | 558 | | 1.04 |
| | 31 | Normal Wear | 1.4 | 31 | 01Marti8 | 30Mart8 | 806 | 556 | 1 | 100 |
| | | Normal Wear | 18. | 23 | O1Mar18 | 09Apr18 | 1087 | 837 | 1 | |
| | 5 | - Normal Wear | 3.4 | 31 | Q1Mar10 | StraMoc | 808 | 550 | 8 | - |
| | 0 | Normal Wear | 1.3 | 36 | 01Mert8 | 25Mar18 | 658 | 408 | ŧ. | 1.00 |
| | 7 | Normal Weikr | 1.3 | 36 | 01Mar18 | 25Mar18 | 858 | 408 | | 1 |
| | 8 | Normal Wear | 3.4 | 31 | 01Mar12 | 30Mar18 | 808 | 550 | | 32.1 |
| | | Normal Wear | .3.3 | 38 | 01Mart8 | 25Mar18 | 658 | 408 | 8 | |
| Average Life (Hours) | | | | | | | 788 | 538 | 6 | 101 |
| Lip Shrouds | | | | | | | | | | . 893 |
| | | Normal Wear | 1.2 | 81 | 01Aug17 | 01May18 | 4877 | 927 | | 122 |
| | 2 | Normal Wear | 1.3 | 81 | 01Aug17 | OtMay18 | 4877 | 927 | | 343 |
| | 3 | Normal Wear | 13 | 81 | 01Aag17 | DiMay18 | 4877 | 927 | - | 1002 |
| 394-9744 | | Normal Wear | 33 | 94 | 01A-017 | 24Mar18 | 4202 | 252 | | 1 |
| 304-0744 | -5 | Normal Wear | 1: | 100 | 01Aug17 | 110Mar18 | 2950 | 0 | | |
| 394-9744 | 8 | Normal Weat | 1.1 | 94 | 01Aug17 | 24Mar18 | 4202 | 252 | - | |
| | 7 | Normal Wear | 13 | 61 | 01Aug17 | Q1May18 | 4677 | 927 | | |
| | | Normal Want | 13 | 81 | OIA PET | OfMa-18 | 4877 | 0.37 | 2 | |

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Partier GET Inco

» Bucket Cycle Summary—these monthly summaries show bucket cycle trends of CPT, CPH, and Productivity as well as average life trends.



- » Get real time data on G.E.T. performance and expected life.
- » Plan maintenance
- » Manage Inventory
- » Identify the best G.E.T. solutions
- » Know your CPT

GET THE FACTS YOU NEED! STOP MANAGING YOUR G.E.T. WITH OPINIONS AND ASSUMPTIONS.

Talk to your Product Support Representative or G.E.T. Specialist today to learn how they can help you simplify your bucket management.

WEAR PARTS & A.R.M.

TOTAL BOT DE DECEN

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CATERPILLAR

MECHANICALLY ATTACHED WEAR PLATE SYSTEM (MAWPS)

Safeguard wear areas with this hammerless system available for a wide variety of applications.

INCREASE YOUR UPTIME

LOWER YOUR INVENTORY COSTS

SIMPLIFY INSPECTIONS

EXTEND WEAR LIFE

Two minute change-out no hammer required.



Flexible, versatile system welds to flat and curved surfaces.

Wear indicator holes allow for quick and easy inspections, reducing maintenance time.

You can install the system perpendicular to material flow, then rotate it for more wear material.

RETENTION WITHOUT THE RISK.

Retention components are located within the base plate, where they're shielded from wear and load—eliminating the risk of wear plates falling off.



CHOOSE THE LOWEST-COST WEAR PROTECTION PER HOUR.

MAWPS VERSUS STEEL PLATES.

When you choose MAWPS instead of steel wear plates, you can see cost savings as high as 44 percent, thanks to significantly lower labor and replacement costs.



TOTAL ANNUAL COSTS WITH STEEL PLATES

| | PARTS | LABOR | TOTAL | |
|--|---------|---------|----------------------------|--|
| Installation costs | \$4,000 | \$1,200 | \$5,200 | |
| Replacement costs (2 times per year) | \$8,000 | \$2,400 | \$10,400 | |
| | | | \$15,600 or \$7.80/hour | |



TOTAL ANNUAL COSTS WITH MAWPS

| | PARTS | LABOR | TOTAL | |
|--|---------|-------|---------------------------|--|
| Installation costs | \$4,000 | \$600 | \$4,600 | |
| Replacement costs (2 times per year) | \$4,000 | \$83 | \$4,083 | |
| | | | \$8,683 or \$4.34/hour | |

EASY INSTALLATION & REMOVAL

Save time and money with MAWPS' two-minute installation and removal.

Weld the adapter perpendicular to material flow for maximum wear material (or parallel to flow with the Cat logo on top for maximum coverage).



Position the wear plate over the base plate and slide the wear plate onto the base plate.





Install one end of the compression retainer with the plug and pry it into place with an 8mm-wide small pry bar. Clean, use pry bar to remove the compression retainer, and slide the wear plate off the base plate.









Scan the QR Code to the right to watch the installation video.



Reduce maintenance hours with MAWPS' easy-to-use wear indicator holes. Just look, then rotate or replace.

SOLID MAWPS

DESIGN SOLUTIONS FOR YOUR BUCKET.

With solid MAWPS, you can enhance protection while keeping machine weight to a minimum. Choose a layout designed by Caterpillar engineers for your specific machine or application to maximize your productivity. Cat dealers can access the global library of MAWPS layouts.



SKELETAL MAWPS

STAY COVERED ACROSS YOUR PASS MATCH.

Quick and easy to install, skeletal MAWPS protect the rear portion of truck bodies to help you maximize uptime. A through-hardened DH-2 wear plate slides onto a weld-on base plate and is held in place with a patented compression retainer, trapping materials from any direction.

TRAP MORE MATERIAL

EXTEND WEAR LIFE

SIMPLIFY REMOVAL & INSTALLATION

INCREASE YOUR FLEXIBILITY

The skeletal wear plate traps material in and between plates, allowing for material-on-material wear instead of wear on steel body liner products.

Because the compression retainer is positioned low in the base plate, more of the wear plate can be worn away before you need to replace it.

You can typically replace worn wear plates in two minutes or less without hammering or welding.

Available in standard and heavy-duty sizes, skeletal MAWPS can be customized to fit virtually any truck body configuration—flat floor or dual slope.





TOTAL WEAR PROTECTION

INCREASED PRODUCTIVITY. FOR EVERY ENVIRONMENT. FOR EVERY APPLICATION.

Get the best available protection for every product on your site, from wheel loaders to cable shovels, with our Total Wear Protection line.



Chocky Bars, available in four shapes, feature a V-groove design that can be bent around a radius. They can be separated or modified in length. The inset of the Cat logo allows for the trapping of fine material in each section, extending the life of the wear material itself. Chocky bars come in four sizes.



Wear Buttons, designed for applications that optimize the round profile, trap material to provide material-on-material wear. Wear buttons are available in four sizes.



Wear Blocks feature a zigzag inset design that allows for material-on-material wear. They prevent channel wear common in parallel grooves, delivering extended life in extreme operations.



Roll Bars protect the leading edge of dozers, loaders, mining shovels and other equipment, providing maximum wear protection while minimizing drag. Roll bars are available in three sizes.



Bolt Protectors help prevent hardware wear on cutting edges, top plates, sidebar protectors and more by allowing material to pack. They also allow for easier removal when replacing G.E.T.



Chocky bars in application

WELD-ON HEEL SHROUDS & HALF ARROW EDGES

WELD-ON HEEL SHROUDS

Weld-on heel shrouds protect the bottom and side of the bucket, concentrating extra wear material in the corner where it's needed most, and are ~400 Bn in hardness. Straight or curved shrouds come in three sizes, offering up to two inches of corner protection.



WELD-ON HALF ARROW EDGES

Weld-on half arrow edges can be used to customize a bucket with sidebar protection, as side cutters to improve penetration or as segments between teeth to reduce scalloping.



WELD-ON EDGE SHROUDS

Stackable edge shrouds are designed to fit any bucket configuration and extend the life of your excavator bucket edge assembly. Shroud profile is designed to work with K Series vertical pin retainers and horizontal J Series side pins. Tabs allow for easy alignment while installing your edge protection. Two shroud sizes are available per edge thickness to fit any bucket tooth spacing.

ABRASION RESISTANT MATERIAL (A.R.M.)

Cat Abrasion Resistant Material is a coating made of extremely hard tungsten carbide particles that forms a protective shield over key wear surfaces. Cat G.E.T. with A.R.M. is ideal for high-abrasion, low-to-moderate impact applications—such as working in sand, gravel and other abrasive materials that can severely diminish G.E.T. wear life.

EXTEND YOUR WEAR LIFE LOWER YOUR COST PER HOUR

Tungsten carbide offers three to five times the life of through-hardened G.E.T.

Self-sharpening wear pattern means fewer change-outs in the right applications.



HARDNESS COMPARISON



EXAMPLE PARTS WITH A.R.M. APPLIED







Two-Strap K Series Adapter

J Series Penetration Tip

K Series Heavy Duty Tip





NOTE: Products available with the A.R.M. option feature this symbol.



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