

CAT® GROUND ENGAGING TOOLS



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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Part number reference can
be found in Appendix (PEBJ0079)

*Note: Please send all feedback to
<https://dealer.cat.com/en/ps/parts/parts-mktg/get/c/form.html>

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

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

MINIMAL THROW AWAY

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

IMPROVED PRODUCTIVITY

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

A.R.M.
OPTION
AVAILABLE



LEVEL CUT REVERSIBLE

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



LEVEL CUT EXTENDED REVERSIBLE

- » Longer reversible finish and semi-finish dozing end bits used to extend the length of the blade
- » 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

A.R.M.
OPTION
AVAILABLE



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

A.R.M.
OPTION
AVAILABLE

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

A.R.M.
OPTION
AVAILABLE



UTILITY

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

A.R.M.
OPTION
AVAILABLE



HOT CUPPED

- » Forward protruding profile for better penetration than flat plate

A.R.M.
OPTION
AVAILABLE



GENERAL PURPOSE (FACTORY FIRST FIT)

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

A.R.M.
OPTION
AVAILABLE



EXTENDED WEAR LIFE (EWL)

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

A.R.M.
OPTION
AVAILABLE

See page 188 for more details on Abrasion Resistant Material (A.R.M.).

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

A.R.M.
OPTION
AVAILABLE



EXTREME EXTENDED WEAR LIFE (EEWL)

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

A.R.M.
OPTION
AVAILABLE



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.

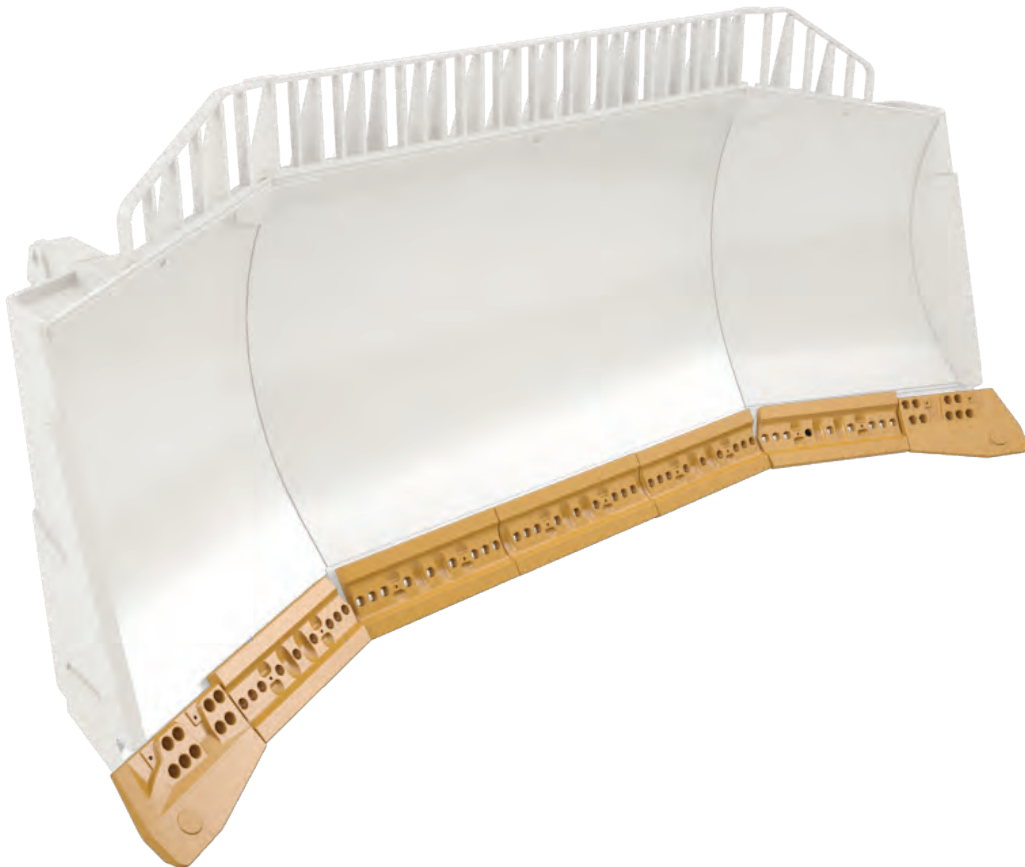
Designed to fit Cat D10 and D11 universal and semi-universal blades, this cast cutting-edge system delivers reduced machine downtime and maximum productivity in low to moderate impact pushing applications. The new high-abrasion end bits are now married up with complementary cast high-abrasion cutting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

MAXIMUM WEAR LIFE

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

LESS THROW AWAY

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

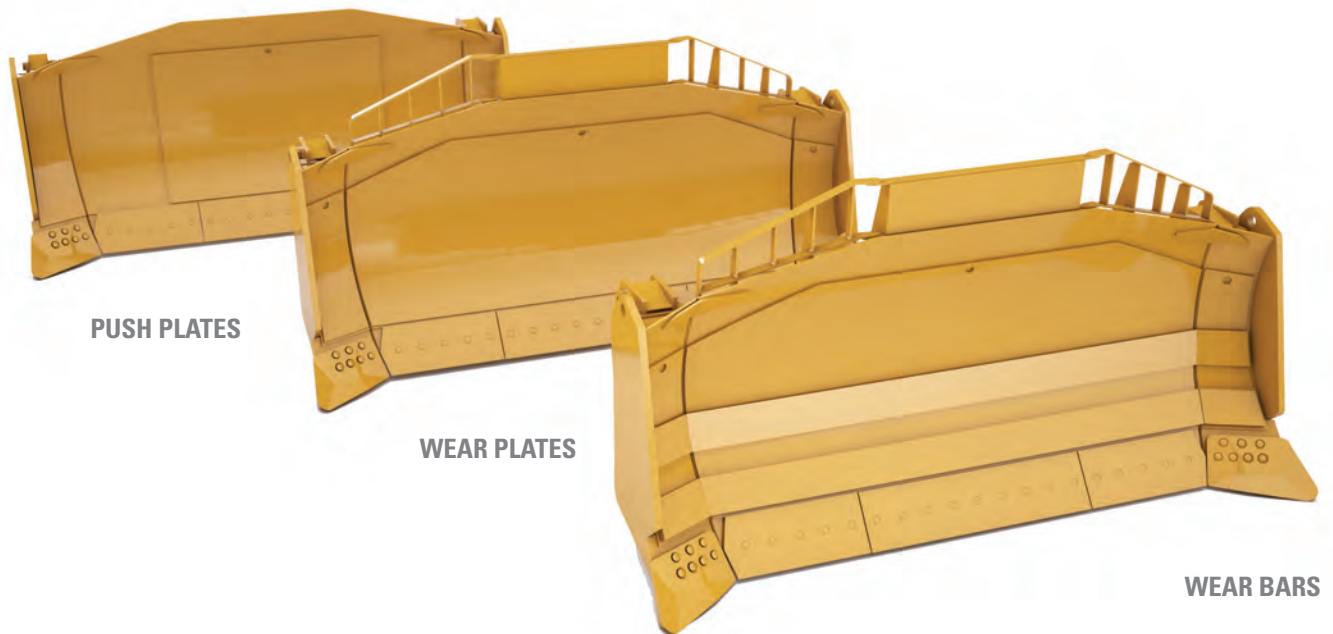
Push plates distribute the high forces created when pushing scrapers.

EXTEND BLADE SERVICE LIFE

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

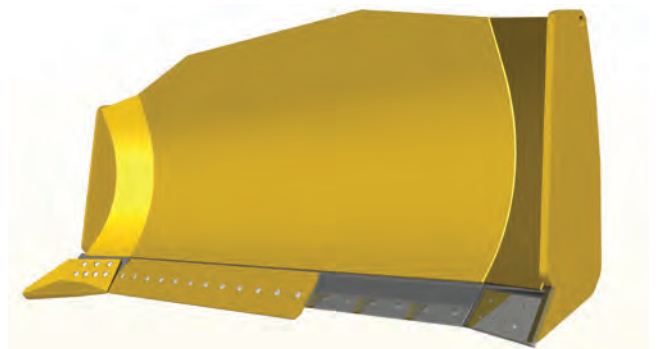
SIMPLIFY INSTALLATION

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

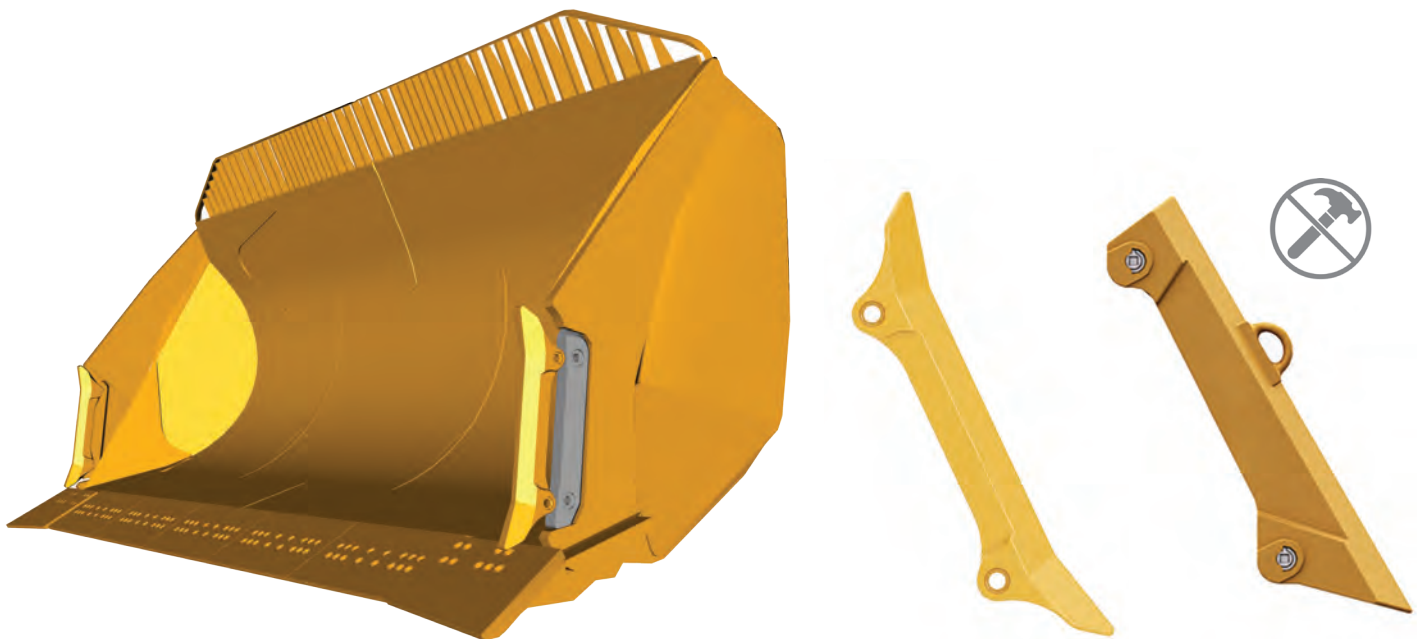
Dozers need sidebar protection, too. Large dozers, like large loaders, work in high-impact and extreme abrasion. Increase carrying capacity and simplify your blade maintenance with hammerless protection. Simply weld in the protector adapter once and save hours each time you replace the sidebar protection.

LOW MAINTENANCE

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

HAMMERLESS

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 allows pin re-use on R style adapters.

HAMMERLESS DESIGN

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		R450		R500		R550	
	Side Pin	CapSure	Side Pin	CapSure	Side Pin	CapSure	Side Pin	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		R450		R500		R550	
	Side Pin	CapSure	Side Pin	CapSure	Side Pin	CapSure	Side Pin	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



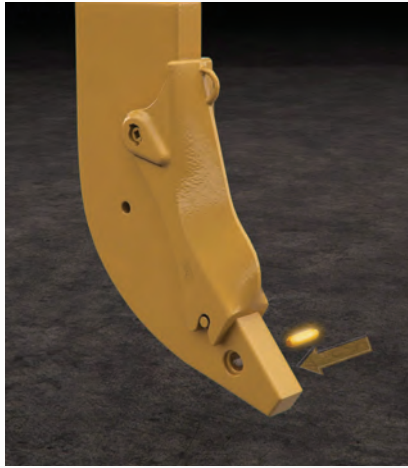
LONG PENETRATION

- » 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.

1 Insert pin into adapter hole.



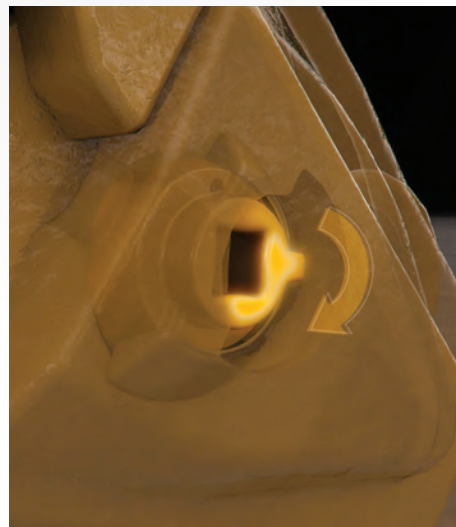
2 Insert washer into adapter hole.



3 Slide the tip onto adapter.



4 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 Intermediate 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.

- 1** Place the tool on the tip and align the extractor with the pin.



- 2** Strike the tool with a hammer until the pin is removed.



Single shank machine

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

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

EXTENDED PROTECTORS

60% more coverage.

FULL LENGTH

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.



PIN ON

GENERAL PURPOSE

- » Baseline protector R350 and R450 only



ONE PIN



HAMMERLESS

SHARP

- » Penetrates compact material better than standard design
- » Hammerless option has 40% more wear material than side pin version



PIN ON



HAMMERLESS

EXTENDED PROTECTOR

- » 60% more shank protection than Sharp



THREE-PIECE SHANK PROTECTOR



PIN ON

INTEGRATED SHARP

- » Works with triangle-shaped bar to provide complete shank protection

INSTALLATION & REMOVAL

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

1

Insert pins and washer into shank hole.



2

Place shank protector over lower pin.



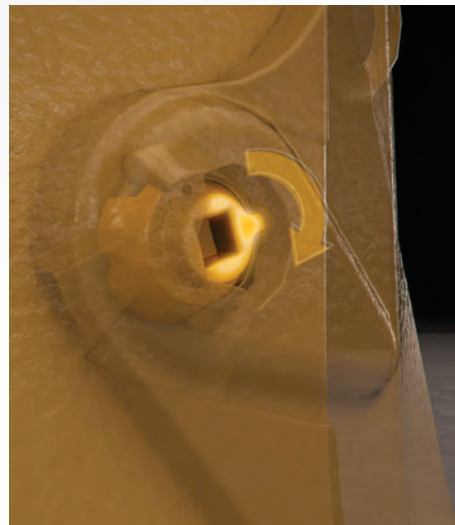
3

Position retainer over upper pin.



4

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.

