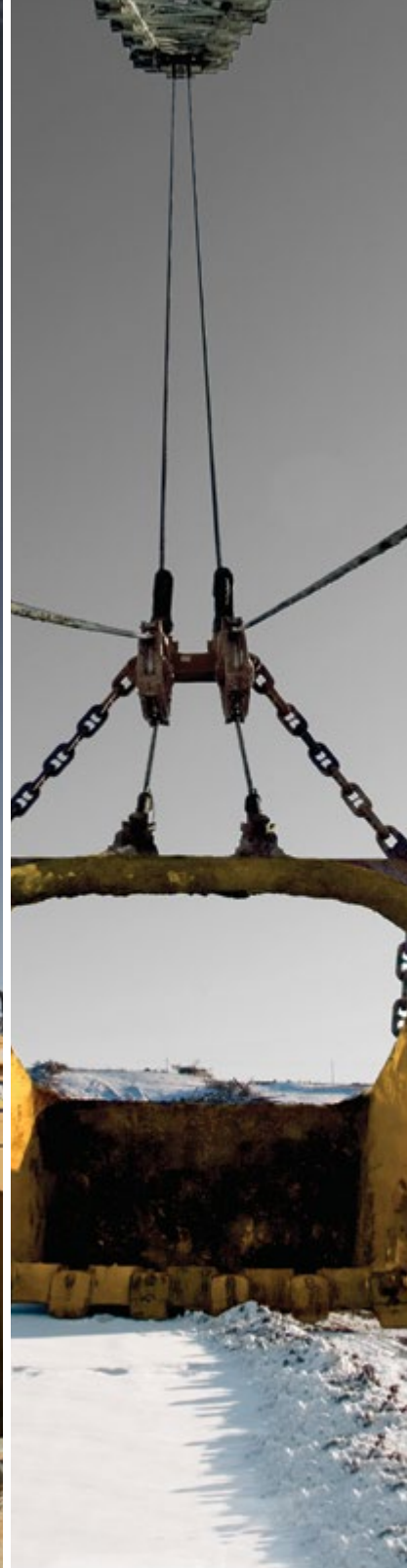




CAT® GROUND ENGAGING TOOLS

FOR SURFACE EXTRACTION MACHINES

Wheeler



SOLUTIONS FOR DEMANDING APPLICATIONS.

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

Choosing the right Ground Engaging Tools (G.E.T.) can make a big difference in your operation's productivity and profitability. That's why we've developed a wide array of integrated G.E.T. systems that are performance-built to specific application requirements.

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.

BUILT FOR IT.™



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WHEEL LOADERS (988-994)

Strength. Durability. Long life. Plus everything you need to boost uptime on your job.

For 988-994 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. They work in combination with our base edge systems and side and edge protection to help you achieve maximum production in a wide range of applications.



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:

1 STRENGTH

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

2 PENETRATION

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

3 WEAR LIFE

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

	IMPACT (material size)	ABRASION (tip life)
LOW	 0-6" 0-152mm	> 1,000 hours
MEDIUM	 6-18" 152-457mm	250–1,000 hours
HIGH	 18"+ 457mm+	< 250 hours

CAT ADVANSYS™ TIP & ADAPTER SYSTEM

NEXT GENERATION HAMMERLESS G.E.T. FOR MAXIMUM PRODUCTIVITY IN THE TOUGHEST APPLICATIONS.

Optimize the performance of your 988-994 wheel loader with Cat Advansys G.E.T. Our newest and most robust system delivers the highest productivity and quickest installation and removal times.

ENHANCE YOUR RELIABILITY

Cat Advansys features the strongest, most robust adapters we have ever produced.

IMPROVE YOUR PRODUCTIVITY

New Heavy Abrasion and Heavy Penetration tip shapes feature more wear material and stay sharper during the full life of the tip.

SIMPLIFY INSTALLATION

Integrated retention components mean no more searching for pins or retainers.

INCREASE DURABILITY

Top covers and full adapter covers are available for the double strap and flush mount adapters, respectively.

EASILY UPGRADE

Adapters fit in same space as K Series for easy upgrading.

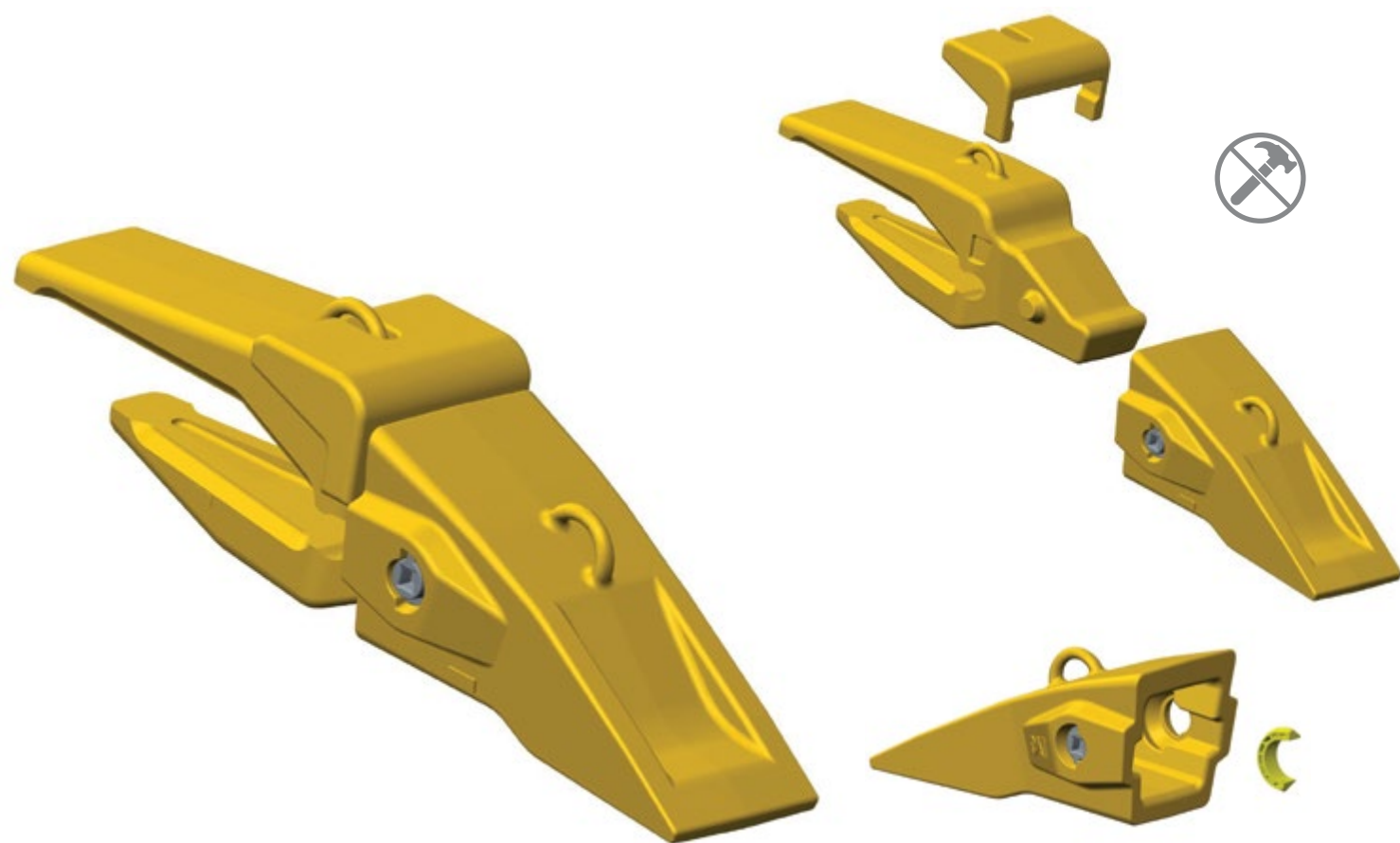
CHANGE OUT TIPS QUICKLY & EASILY

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

ENHANCE JOBSITE SAFETY & MAINTENANCE TIME

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

CAT ADVANSYS TIP & ADAPTER SYSTEM



INSTALLATION & REMOVAL

It's fast, easy and safe with the Cat Advansys locking system—just follow these two simple steps.

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



1

Tighten 180° into locked position with a 3/4" breaker bar.



2

Remove by loosening 180° to the unlocked position.



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.

ABRASION ↑	HEAVY ABRASION		» Heavy Abrasion tips feature a redesign for the Cat Advansys system that results in 11 percent more usable wear material than K Series and a tip shape that stays sharp through the life of the tip. These tips are available with Abrasion Resistant Material (A.R.M.).*	A.R.M. OPTION AVAILABLE
	HEAVY PENETRATION		» Heavy Penetration tips feature a redesign for the Cat Advansys system that results in 6 percent more usable wear material than K Series and a tip shape that stays sharp through the life of the tip in the most severe applications.	
	HEAVY DUTY		» Heavy Duty and Heavy Duty 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.	A.R.M. OPTION AVAILABLE
	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.	
	COAL		» Coal tips have a reduced amount of wear material to maximize bucket payload and a smooth underside to maintain a flat floor.	
	PENETRATION PLUS		» Penetration Plus tips feature 25 percent more wear material and a leading edge with 25 percent less cross-sectional area. They self-sharpen as they wear.	
IMPACT ↓	PENETRATION		» Penetration tips are ideal for densely compacted materials. They feature a leading edge with 60 percent 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.*	A.R.M. OPTION AVAILABLE

*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.

MACHINE COMPATIBILITY

WHEEL LOADER	SIZE CLASS	ADAPTERS AVAILABLE
988, 990	Cat Advansys 130	Flush-Mount with Adapter Cover, Two-Strap with Top Cover
990, 992	Cat Advansys 150	Flush-Mount with Adapter Cover, Two-Strap with Top Cover
992, 993, 994	Cat Advansys 170	Flush-Mount with Adapter Cover, Two-Strap with Top Cover
994	Cat Advansys 200	Two-Strap with Top Cover
994 K	Cat Advansys 220	Two-Strap with Top Cover



K SERIES TIP & ADAPTER SYSTEM

MAXIMUM PRODUCTIVITY MEETS HAMMERLESS RETENTION.

Looking for a vertical retention tip and adapter system that stays sharper, changes easier and holds tighter? Choose the K Series system's twist-on design and vertical retainer, which together provide reliable retention and easy installation and removal.

IMPROVE YOUR PRODUCTIVITY

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

EXTEND LIFE

More wear material can effectively be used before the tips are changed, adding 10-15 percent more usable life.

INCREASE DURABILITY

The tip and adapter fit together precisely to reduce tip movement and adapter wear.

STAY SAFE & REDUCE MAINTENANCE COSTS

One-piece vertical retainer allows for hammerless installation and removal, with only standard, low-force tools needed.

SIMPLIFY INSTALLATION

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



K SERIES TIP & ADAPTER SYSTEM



Twist-on design

Lower-profile tip



No hole in adapter

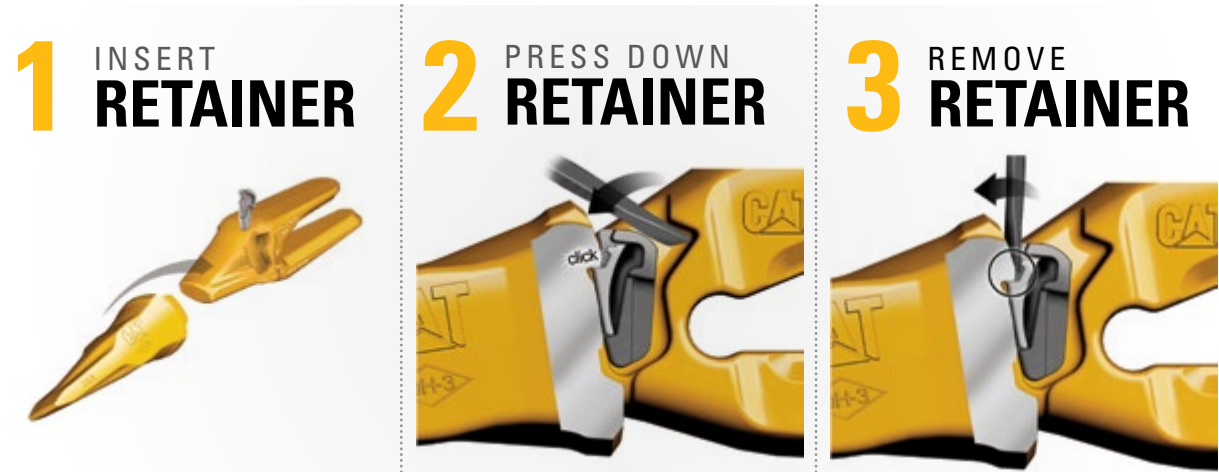


Retainer - Bolt Drive
» Extreme Packing
» Slag Operations

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 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 ↑	HEAVY ABRASION	 	» Heavy 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 a tip base with 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 as well as a spade design that has 60 percent less cross-sectional area on the leading edge than Heavy Abrasion tips.
	HEAVY DUTY	 	» Heavy Duty 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.
	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.
	PENETRATION PLUS	 	» Penetration Plus tips feature 25 percent more wear material and a leading edge with 25 percent 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 percent 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.*
IMPACT ↓			

A.R.M.
OPTION
AVAILABLE

A.R.M.
OPTION
AVAILABLE

*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.



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 and higher productivity.
- » Available with Abrasion Resistant Material.

A.R.M.
OPTION
AVAILABLE



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).

WHEEL LOADER	SIZE CLASS	ADAPTERS AVAILABLE
988	K110	Flush-Mount, Two-Strap, Bolt-On
988, 990	K130	Flush-Mount with Top Cover, Two-Strap
990, 992	K150	Flush-Mount with Top Cover, Two-Strap
992, 993, 994	K170	Two-Strap

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

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

ENHANCE YOUR RELIABILITY

Weld-on adapters offer excellent retention.

IMPROVE SAFETY & MAINTENANCE TIME

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



J SERIES TIP & ADAPTER SYSTEM



Rock Chisel Tip

INSTALLATION & REMOVAL

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

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.

3

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

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

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.

ABRASION ↑	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.

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

Side-pin retrofit design used on J-style adapters means the pin is reusable.

ENHANCE JOBSITE SAFETY & MAINTENANCE TIME

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

CHANGE OUT TIPS QUICKLY & EASILY

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

SPEED UP YOUR INSTALLATION TIME

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

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.

A.R.M.
OPTION
AVAILABLE



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, Bolt-On
990	J600	Flush-Mount with Top Cover, Two-Strap
992	J700	Flush-Mount with Top Cover, Two-Strap
994	J800	Flush-Mount with Top Cover, Two-Strap, Mechanically Attached Adapter

HAMMERLESS TIP & ADAPTER SYSTEM FEATURING CAPSURE RETENTION



INSTALLATION & REMOVAL

It's fast, easy and safe with the CapSure locking system—just follow these four simple steps:

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



1

Insert pin and washer into the adapter hole.

2

Slide the tip onto the adapter.

3

Tighten 180° into the locked position with a 3/4" ratchet.

4

Remove by loosening 180° to the unlocked position.

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.

ABRASION IMPACT	HEAVY DUTY ABRASION » Heavy Duty Abrasion tips are ideal for high-abrasion applications like sand, gravel and shot rock. They have the maximum amount of wear material—approximately 145 percent more—and the tip base features 35 percent more surface area than Heavy 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 as well as a sharp spade design with 70 percent less cross-sectional area on the leading edge than Heavy Duty Abrasion tips.
	HEAVY DUTY » Heavy Duty tips are the baseline for other tips. All wear comparisons are to the Heavy Duty 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.

CAPSURE COMPATIBLE ADAPTER OPTIONS

Our J Series adapters are matched with CapSure retention 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 BOLT-ON



TWO-STRAP



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.

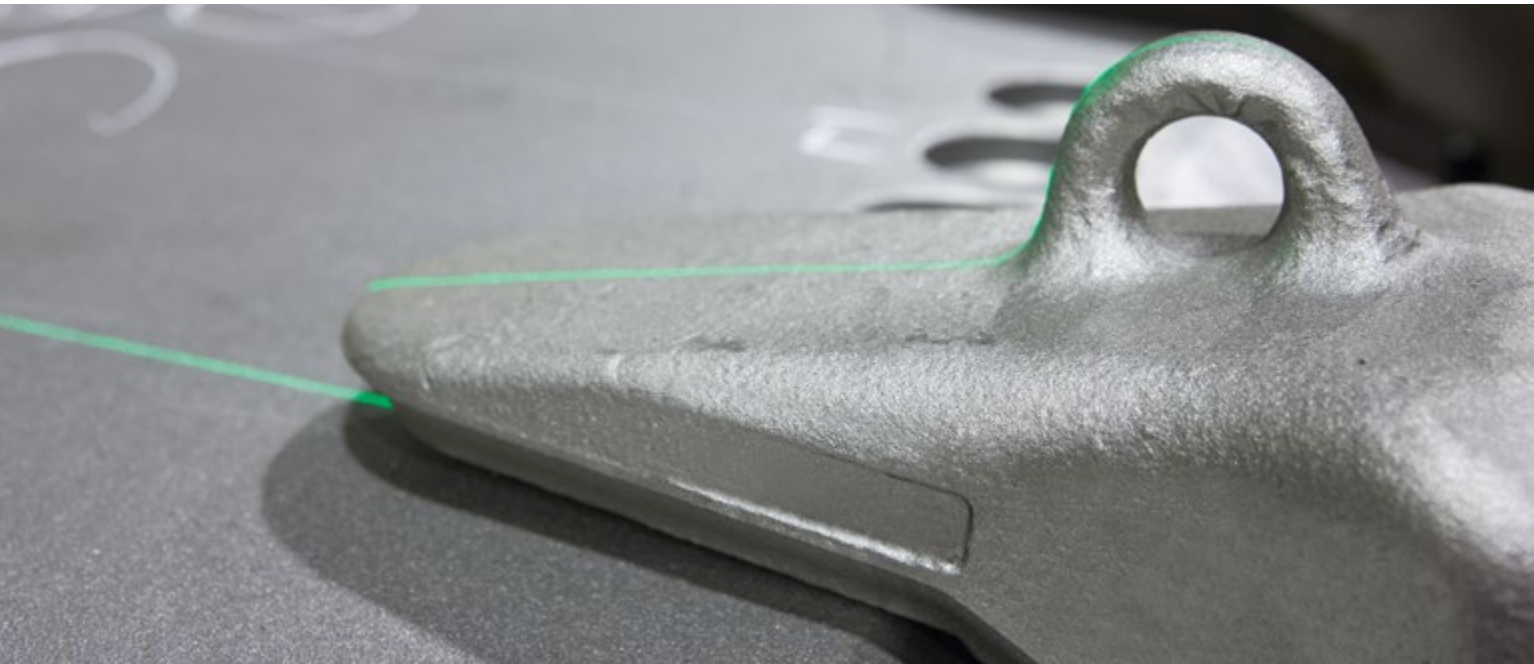


BASE EDGE SYSTEMS

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.

GET MORE ACCURACY

Lasers place the adapters within 0.1mm of specifications.



STRAIGHT

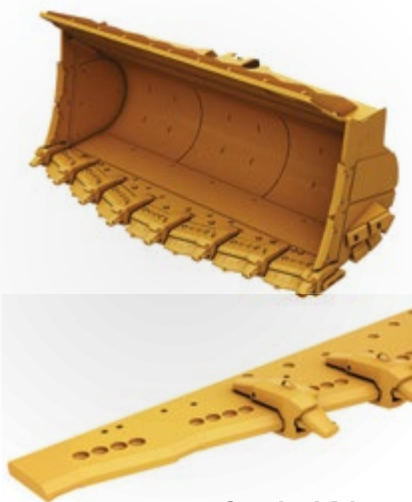


SPADE



Angled Adapter

STEPPED SPADE



Standard Adapter

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

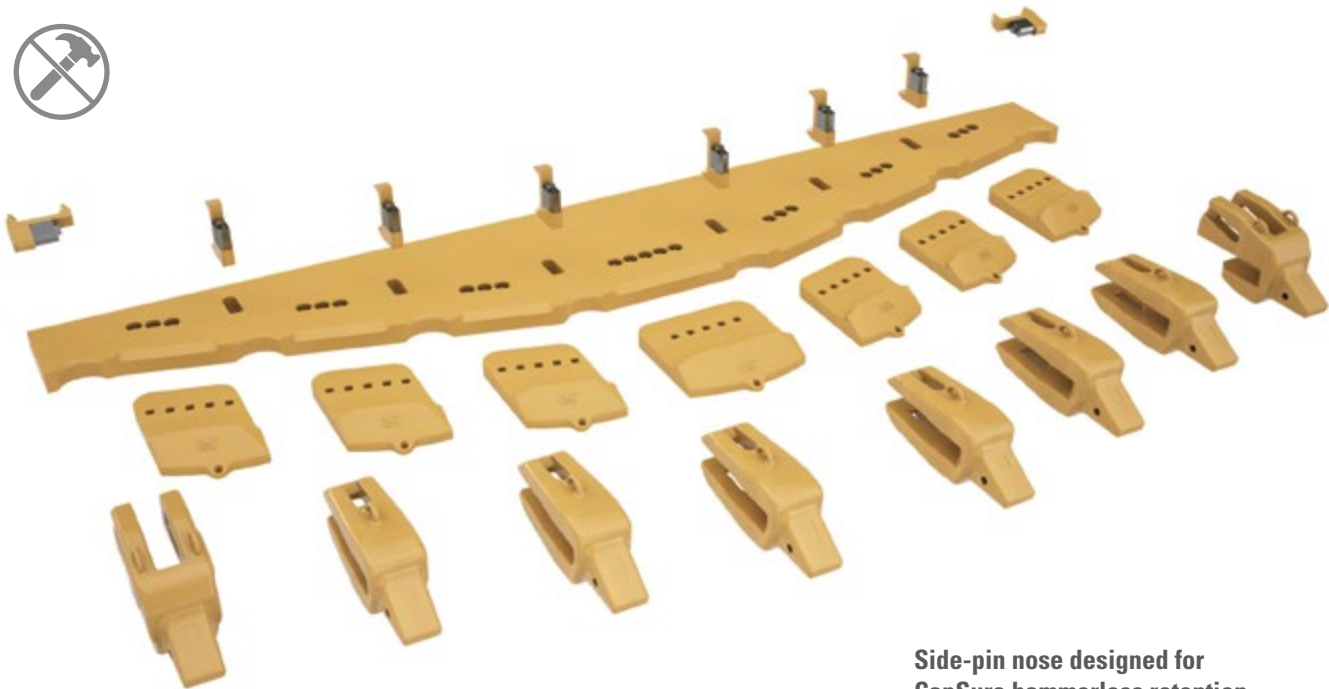
Hammerless system reduces change time to less than 60 minutes—70 percent quicker than welded systems.

IMPROVE SAFETY ON YOUR JOBSITE

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

LOWER YOUR OPERATING COSTS

Full base edge protection reduces wear.



Side-pin nose designed for CapSure hammerless retention.

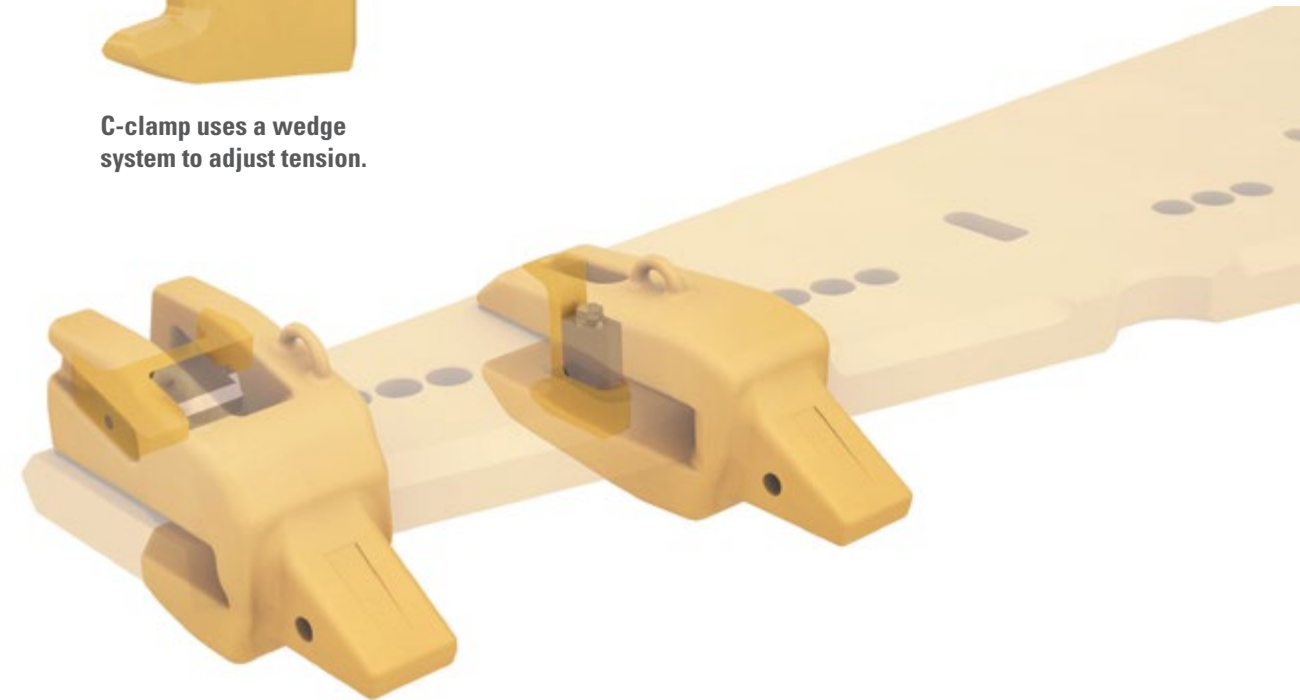
MECHANICALLY ATTACHED ADAPTER SYSTEM (MAA)



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

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

ENHANCE DURABILITY

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

BOOST UPTIME

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

SPEED UP CHANGE-OUT TIMES

Cover protects the adapter and welds.

INCREASE PRODUCTION

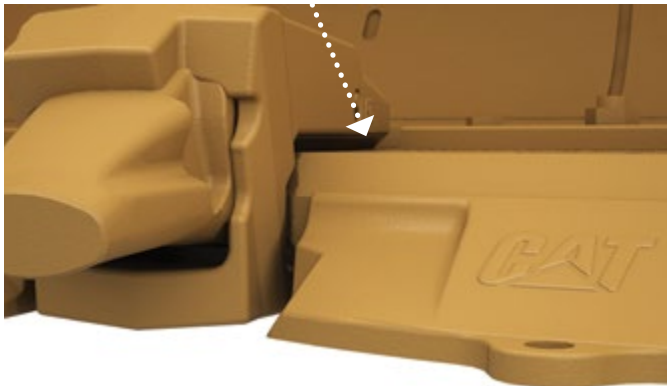
Adapter cover matches half arrow thickness, providing a flat, clean floor.



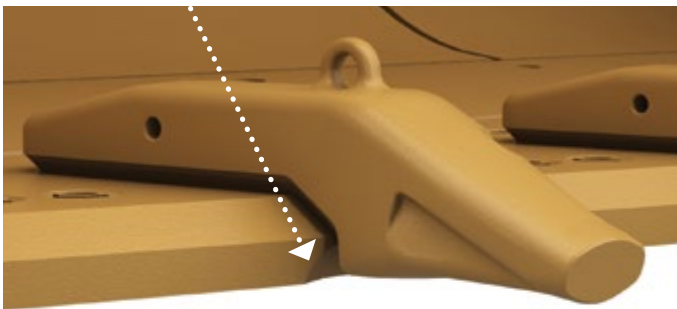
FLUSH-MOUNT ADAPTER SYSTEM

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

Adapter cover protects the weld bead.



Strap is welded, even under the adapter.



Flush-mount adapter base edge assembly is shown with adapter covers.

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

Self-sharpening chamfers provide the best possible penetration.

SIMPLIFY MAINTENANCE

Flat floor offers easy cleanup on your jobsite.

REDUCE YOUR REPAIR COSTS

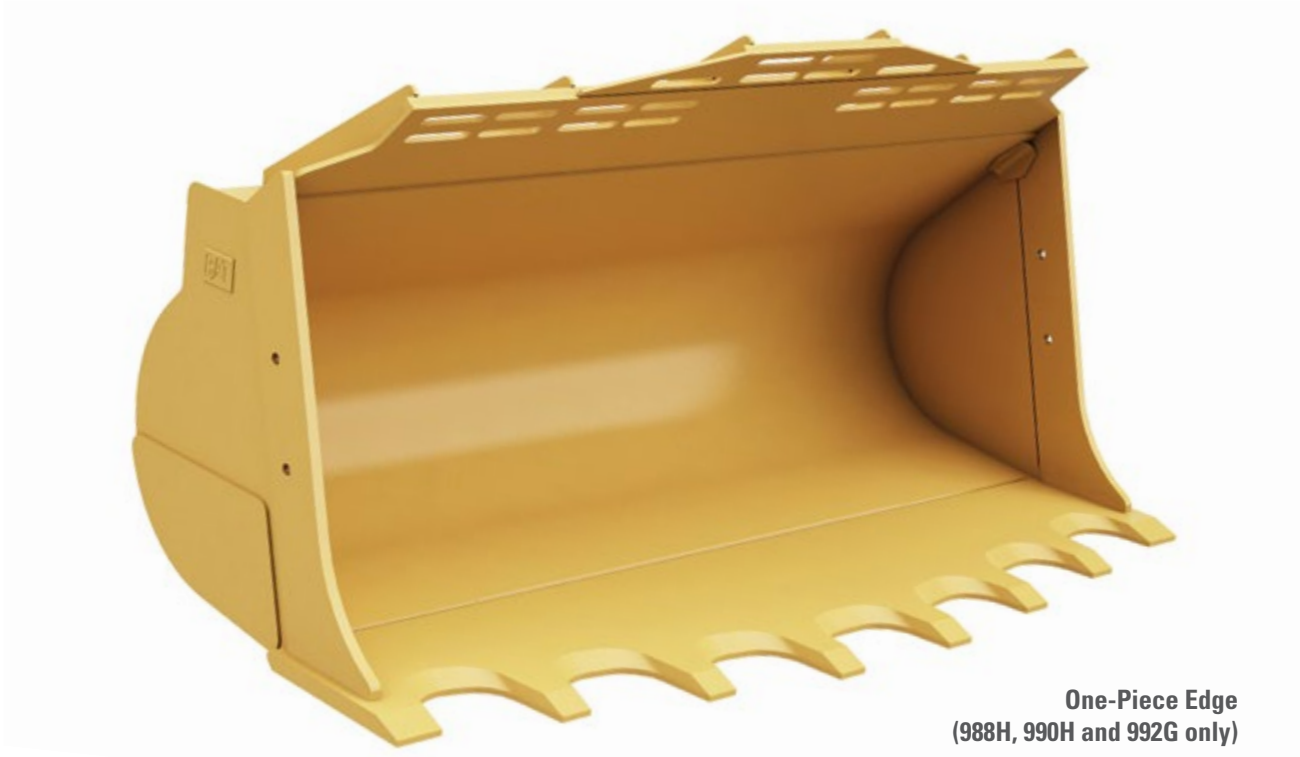
Bolt-on segments mean no welding, so you only need to replace worn sections (988H and 990H only). *See page 32 for example bucket.

ENHANCE DURABILITY

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



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

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

EXTEND LIFE

Extended base edge end protects adapter corner welds.

SPEED UP INSTALLATION

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



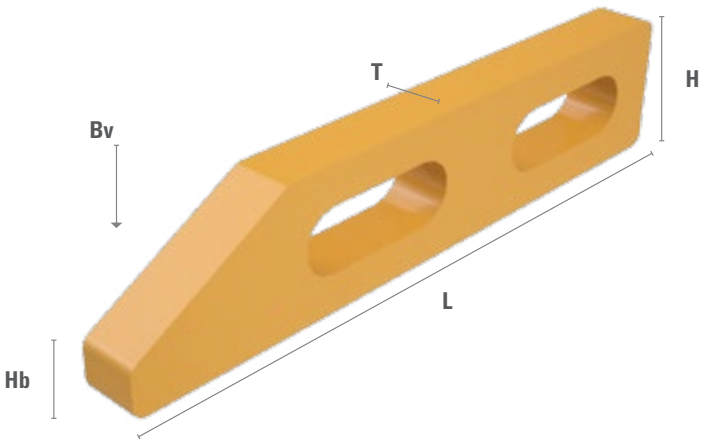
BASE EDGE END PROTECTION SYSTEM (BEEP)

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	22	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



Plug Weld



SIDE & EDGE PROTECTION

MAINTAIN YOUR PERFORMANCE EDGE.

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

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



SIDEBAR PROTECTORS

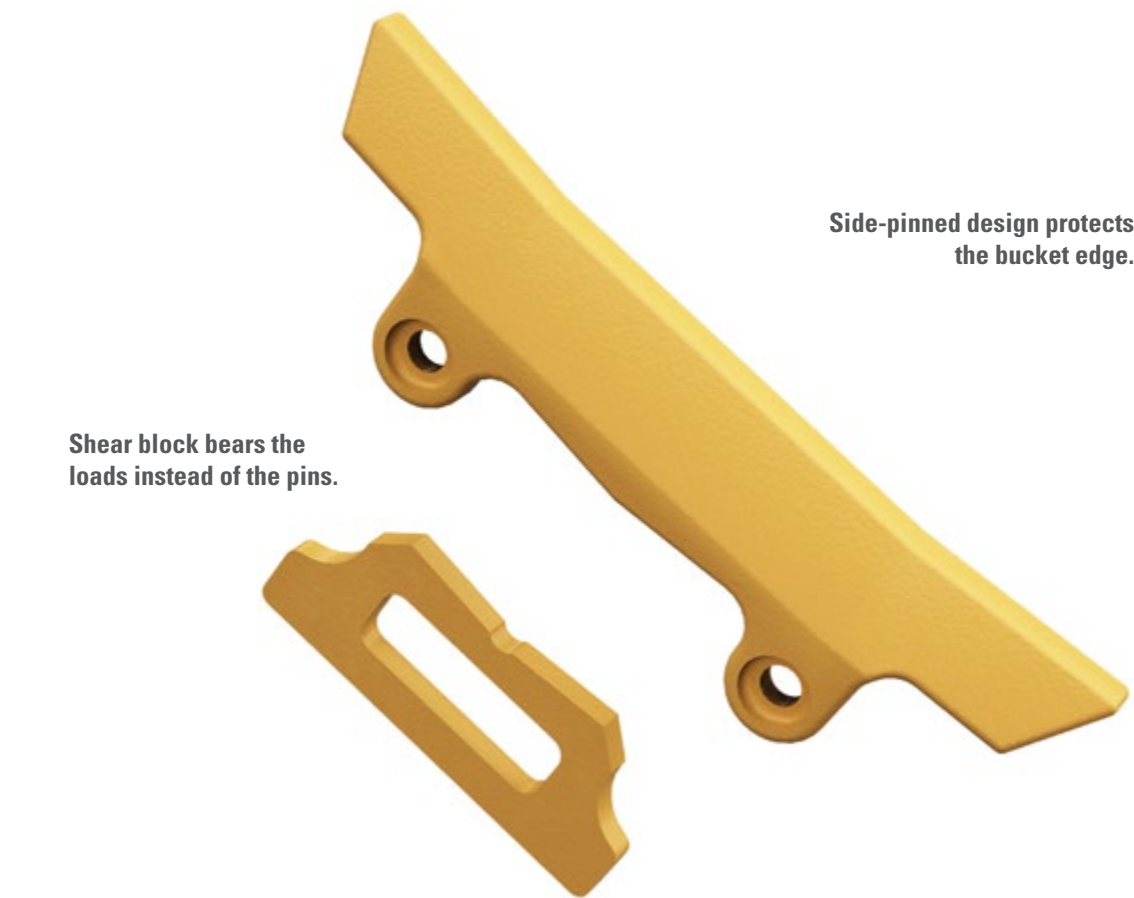
Protect your bucket’s structural integrity and enhance penetration with sidebars and shear blocks.

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.



Shear block bears the loads instead of the pins.

Side-pinned design 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.



990, 992 and 993 SBP

994 SBP

Shear Block

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

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

SIMPLIFY REMOVAL & INSTALLATION

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

BOOST YOUR UPTIME

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

LOWER YOUR OWNING & OPERATING COSTS

Pin lug is reusable.

NOTE: Shrouds have a separate center, as well as separate left-hand and right-hand profiles, to account for spade base edges.

MACHINE	BASE EDGE (mm)	BOLTS	ANGLE*
988	63	4	35°
990	70	4	35°
992	70	3	35°
	76	4	22.5°
	76	4	35°
993	90	4	35°
994	100	5	22.5°

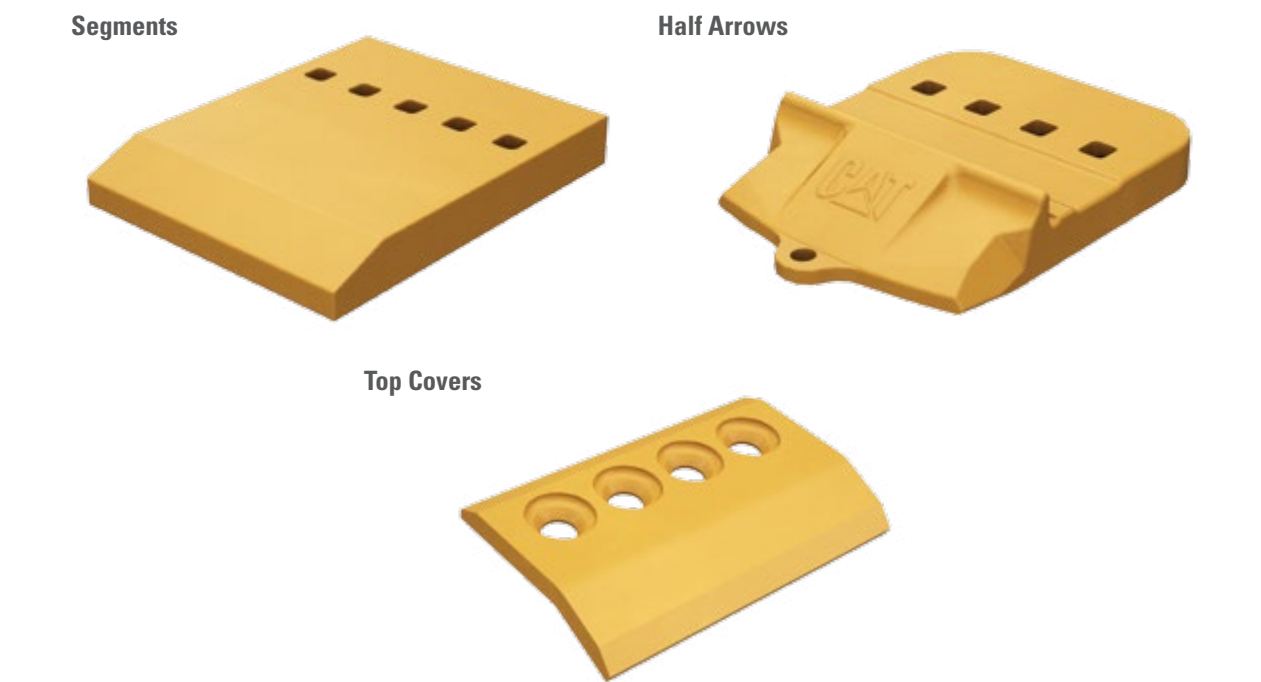
**35-degree angle fits with a flush-mount adapter; 22.5-degree angle fits with a two-strap adapter. See base edge compatibility chart in appendix for further details.*



HALF ARROWS, TOP COVERS & SEGMENTS

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. And segments are ideal for moving re-handled materials with medium impact and medium abrasion.

SIMPLIFY MAINTENANCE	Individual pieces that protect the edge can be changed independently.
ENHANCE DURABILITY	Half arrows cover the leading edge for smooth material transition.
BOOST YOUR UPTIME	Top cover reduces wear on weld joints.
SAVE ON INVENTORY COSTS	Reversible segment creates more leading edge wear material, reducing piece parts.



SEGMENTS

Segments give you more leading-edge wear material, extending life and reducing your investment in piece parts.

NOTE: Half arrows and segments each have a separate center, as well as separate left-hand and right-hand profiles, to account for spade base edges.

SEGMENTS

MACHINE	THICKNESS (mm)	BOLTS
988	40*	3
	45	3
	45	3
990	40	4
	50	4
	60	4
992	40	4
	50	4
	60	4
993	60	4

* Features Abrasion Resistant Material (A.R.M.)



HALF ARROWS & TOP COVERS

Half arrows and top covers offer significant base edge protection—increasing life three to five times over unprotected base edges.

TOP COVERS

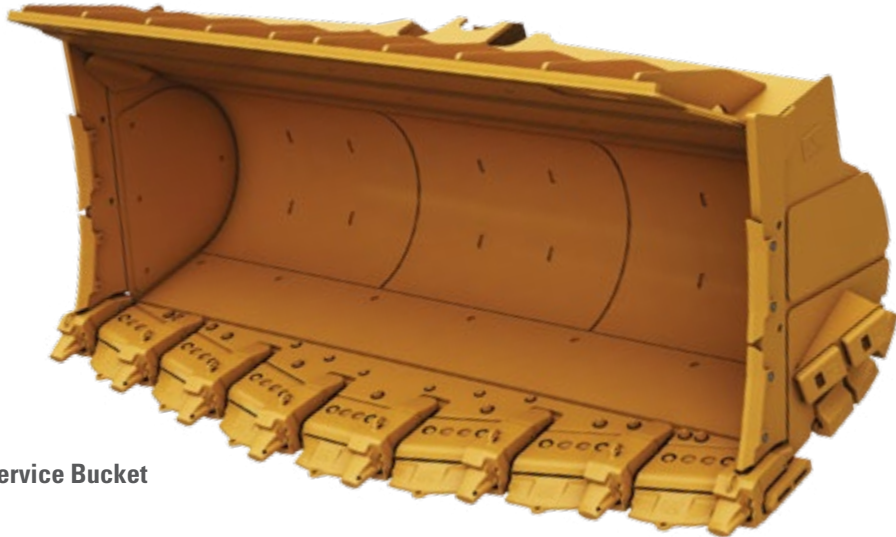
MACHINE	THICKNESS (mm)	BOLTS	ANGLE*
988	25	3	35°
	25	3	22.5°
	25	3	22.5°
990	25	4	35°
	25	4	22.5°
	25	4	35°
992	35	4	35°
	25	4	22.5°
	25	4	35°
	25	4	35°
993	29	4	35°
994	35	5	22.5°

*35-degree angle fits with a flush-mount adapter;
22.5-degree angle fits with a two-strap adapter.

HALF ARROWS

MACHINE	THICKNESS (mm)	BOLTS
988	45**	3
	45	3
	45	4
	60	3
	60	4
	75	4
990	60	4
	60	4
992	45	3
	60	3
	60	4
993	60	4
	75	4
994	75	5

** Narrower width: 342mm



988 Extreme Service Bucket

CAT DEALER + BUCKET MANAGEMENT =
MAXIMUM PRODUCTIVITY & LOWEST OPERATING COST

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:

- » Select buckets and G.E.T. products to meet your application requirements. Caterpillar designs its products to maximize the productivity of your equipment, rather than simply fit onto it.
- » Improve your operators’ ability to get the most out of your bucket and G.E.T. Expert advice helps you lower costs and reduce unscheduled maintenance.
- » Simplify maintenance by tailoring G.E.T. systems to your needs. We listen to your challenges and develop solutions that fit your expectations, including custom products.
- » Help you manage your bucket fleet and G.E.T. inventory by establishing record-keeping tools to track performance. Bucket inspection programs help you monitor how your G.E.T. system is wearing so you can adapt to the 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.

SURFACE EXTRACTION

Durable. Reliable. Best-in-class service.

Cat G.E.T. is built for Cat equipment. We design our products to support the machine's productivity, unlike many component suppliers. Whether it's unparalleled availability or custom product offerings, you can rely on your Cat dealer to deliver what you need to be successful.



SURFACE EXTRACTION SYSTEM DESIGN PRINCIPLES

What are the advantages of designing and manufacturing G.E.T. for your equipment? Performance is optimized across the machine, taking a production focus rather than a component focus.

INCREASE DURABILITY

Components are designed to maximize productivity and withstand high breakout forces / impact conditions throughout their service life.

IMPROVE PERFORMANCE

The “system” is designed to balance wear life, maintenance requirements, and removal/installation speed in all applications.

ADAPT TO CHANGES

Site conditions change fast, and so do we. A service-minded design team can deliver custom castings, wear protection or overlay services, so you can adapt as fast as your ever-changing environment.



G.E.T. SYSTEM REFERENCE

CL-1

A Cast Lip G.E.T. System for HMS 6040 FS to 6090 FS

LIP WIDTH & NOSE SIZE (mm)	MODEL	BUCKET CAPACITY m³
4300 x (850)	6050 FS 6060 FS 6060	18/21/23/26/28 21/23/28 34
5100 x (950)	6060 FS	31/34
4300 x (950)	6040 FS	20/22
5600 x (1050)	6090 FS	47/52
5100 x (1050)	6090 FS	37/42
5100 x (1050)	6090 FS	45



X-2

A Fabricated Lip System for HMS 6015B to 6040



70
100mm
6015B
6018

85
100mm
6020B
120mm
6030
6018 FS

95
140mm
6030 FS
6040



X-3

Retrofit G.E.T. for Cast Lip System for HMS 6040 FS to 6060 FS



110
6040 FS
6050
Made as
Ordered (MAO)

130
6050 FS
6060
6060 FS

145
6090
MAO



Retrofit G.E.T. for Cast Lip System for DL 8200 to 8750



8000

8200/8750

8750



X-4

Retrofit G.E.T. for Cast Lip System for ERS 7495



7495

Integral Lip



G.E.T. for ERS Cast Lip Systems 7295 to 7495



Wh8

Wh10
7295/
7395

Wh12
7495

EXTRACTION CLASS LIP DESIGNS

FABRICATED LIPS

Fabricated lips are plate steel products that typically use weld-on adapters. There is little service rebuild performed on the “plate lip” itself. Gauges are often used to position shroud retention bosses on the lip prior to welding. Hydraulic mining shovels less than 400 tons and smaller draglines often use fabricated edges in their buckets.



CAST LIPS

Cast lips are poured steel products that typically use mechanically attached couplers/adapters. Rebuilding the cast lip profiles to design specifications is critical to lip integrity and G.E.T. reliability. Precision gauges are required during the rebuild process to ensure proper dimensional fit. Hydraulic mining shovels greater than 400 tons, large draglines, and electric rope shovels commonly have cast edges in their buckets or dippers.



CL-1 FOR HYDRAULIC MINING SHOVELS – 6040 FS TO 6090 FS

MAXIMUM PRODUCTIVITY THE MOMENT YOU HIT THE GROUND.

CL-1 is our first proprietary cast lip system. Providing both the cast lip and G.E.T. allows you to choose Cat G.E.T. for your Cat machine without having to modify the competitive lip system. CL-1 is supported by your Cat dealer, who cares for all of your equipment needs.

- » High performance and low maintenance.
- » Poured in a single casting—no weld joints to crack.
- » Maximum lip protection, due to the tapered shroud design.
- » Minimized lip repair, thanks to our nose geometry and shroud stabilization.



CL-1 SYSTEM OVERVIEW

CL-1 is a complete system that matches the G.E.T. arrangement with a cast lip that is specifically designed for the machine. CL-1 is available through parts as a cast lip assembly or incorporated into a bucket or clam assembly from WorkTools. Choose CL-1 for your new hydraulic mining shovel direct from the factory.



CL-1 INTERMEDIATE COUPLER

Intermediate couplers secure to the CL-1 nose base with a hammerless retainer that pulls the coupler tight. The coupler pocket has dual load-bearing surfaces to minimize nose stress and wear. These three-piece systems minimize wear on more expensive components, helping to provide the lowest cost per ton.

MINIMIZE NOSE WEAR

Coupler pocket evenly distributes load on nose base to reduce stress.

INCREASE TIP LIFE

Concave fit tooth and coupler transfer load onto larger components.



COUPLER RETENTION SYSTEM:

- » Safety focus—hammerless retention.
- » Minimize lip wear—primary retention reduces movement and secondary retention keeps shroud tight, reducing periodic maintenance.
- » Simple tooling—square hex drive.

Retainer locking cap reduces primary torque screw movement during operation. Dust plug reduces clean-out time during service.



CL-1 coupler retention is serviced as one assembly.

Retainer pulls coupler onto nose base and inward, reducing side movement.

CL-1 TIP OPTIONS

The split tip design improves penetration, resulting in more efficient bucket fill. The retainer lock is built into each tip, simplifying installation. Our hammerless pull ring retention (PRR) secures the tip with the retainer lock. One turn with a common square drive will unlock the tip. Tip stabilizer legs contact coupler before pin to deflect operating load.

CL-P



» This centerline profile tip provides excellent penetration for moderate impact and abrasion applications.

CL-A



» Typically used in high-abrasion applications where aggressive penetration is needed, this tip has 8 percent more wear material than the CL-P tip.



The Pull Ring draws the tapered pin into the retainer until it locks into pin channel. Spiral pin head pulls pin out of pin indentation. Dust plug shortens clean-out time.



Integrated retainer lock

INSTALLATION & REMOVAL

COUPLER INSTALLATION

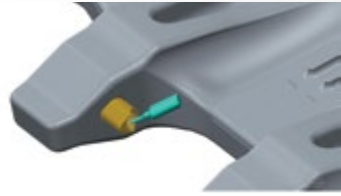
Follow these six simple steps for fast, safe and easy installation and removal:

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



1

Insert retainer body into nose base hole, lubricate.



2

Slide coupler onto nose base.



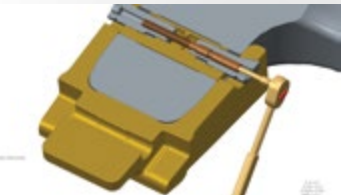
3

Insert retainer ends into body, lubricate.



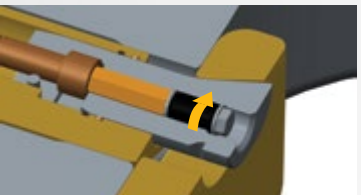
4

Tighten the captured bolt to specified torque.



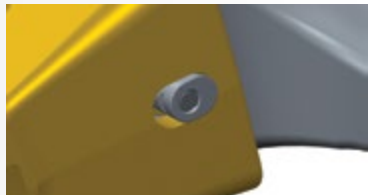
5

Insert locking plug, hand tighten, plus quarter turn.



6

Insert dust plug.



TIP INSTALLATION

Follow these four simple steps for fast, safe and easy installation and removal:

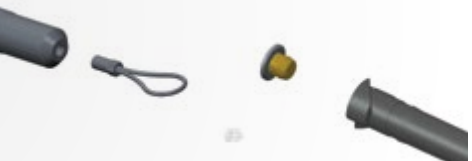
1

Ensure tip pocket and coupler nose are clean of fines and slide the tip onto the coupler nose.



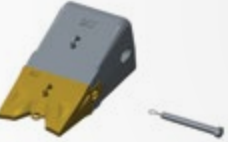
2

If not previously installed, install a dust plug into square drive of tip retaining pin and screw the rope pull into tail end of pin and tighten.



3

Insert tip retaining pin into the tip and coupler assembly, rotating the pin clockwise until pin shoulders butt up to cast shoulders.



4

Insert a suitable pry bar through loop of rope pull and lever across to lock tip retaining pin into place.



CL-1 CAST LIP PROTECTION

The tapered shroud design provides maximum lip protection, reducing lip wear. Shroud retention inserts into shroud body and is secured to the lip with a dual locking system, ensuring your lip protection stays tight during service.

MAXIMIZE PERFORMANCE	Low profile delivers penetration, and optimized material placement reduces un-needed steel cost and weight.
SIMPLIFY REMOVAL	Deflector reduces clean-out time.



- COUPLER RETENTION SYSTEM:
- » Safety focus—hammerless retention.
 - » Minimize lip wear—primary retention reduces movement and deflector retention keeps shroud tight, reducing periodic maintenance.
 - » No special tooling—square hex drive.

CL-1 WING PROTECTION

Wing shrouds secure to the wings with a hammerless bolt retainer that inserts into the shroud body and pulls the shroud tight to the wing.

MAXIMIZE PROTECTION	Low profile delivers penetration, and optimized material placement reduces un-needed steel cost and weight.
IMPROVE SAFETY	Hammerless retention reduces the chance of injury.
REDUCE TOOLING	No special tooling required—only a square hex drive.



INSTALLATION & REMOVAL

CL-1 CAST LIP & WING PROTECTION INSTALLATION

Follow these four simple steps for fast, safe and easy installation and removal:

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



- 1** Insert retaining bolt into shroud and secure into position with retainer clip.



- 2** Align shroud with mounting boss weldment. Ensure retaining bolt aligns with the boss groove.



- 3** Install the belleville washer, thick washer, belleville washer, then cone nut onto the retaining bolt as shown.



- 4** If installing end cap, align end cap and insert end cap bolt with schnorr washer and tension.



WING SHROUD INSTALLATION

Follow these four simple steps for fast, safe and easy installation and removal:

- 1** Insert retainer bolt into shroud and secure into position with retainer clip.



- 2** Align lower wing shroud with mounting boss. Ensure retaining bolt aligns with mounting boss groove. Repeat for upper wing shroud.



- 3** Install the belleville washer, thick washer, belleville washer, then cone nut onto the retaining bolt.



- 4** Tighten.



HAMMERLESS G.E.T. FOR HYDRAULIC MINING SHOVELS

QUALITY AND PERFORMANCE MADE EASY.

Increase your operational efficiency and productivity when you choose hammerless Cat G.E.T. for your hydraulic mining shovel. The X-3 system readily fits onto existing cast nose bases, getting you back to production fast. Only Cat G.E.T. is supported by your Cat dealer, who cares for all your equipment needs.

SIMPLIFY INSTALLATION

Retainer is built into the tip.

SPEED UP CHANGE-OUT

Lock or unlock with just one turn.

ENHANCE JOBSITE SAFETY

No special tools are required to service this hammerless system.



X-3 SYSTEM OVERVIEW

The X-3 class of G.E.T. readily fits onto existing nose base systems for 500-ton hydraulic mining shovels. Side pin and vertical (wedge and spool) couplers work with a full selection of tip styles and lip protection. The robust design can be easily enhanced with Cat Laminated Wear Products to extend the life in high-abrasion applications.



Side Pin System



Wedge & Spool System

X-3 CAST LIP & WING PROTECTION

Shrouds are easily secured to the edge with our retention boss. CapSure retention is built into each shroud eliminating the hammer and need to inventory and assemble separate retainers. One turn with a common square drive will lock or unlock the shroud.



Lip Shroud & Retention Boss

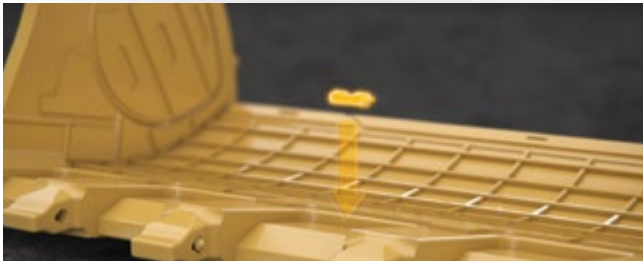
Two-piece wing shrouds offer flexible protection. Change the worn protector by driving out the pin.

LIP SHROUD INSTALLATION

Follow these three simple steps for fast, safe and easy installation and removal:

1

Install retention boss (welded).



2

Slide shroud over lip and boss.



3

Rotate CapSure retainer 180°.



X-3 COUPLER OPTIONS

Intermediate couplers pin onto the existing nose base. The side pin design, featuring CapSure retention, enables fast hammerless removal of the coupler and tip. These three-piece systems minimize wear of more expensive components, helping to provide a low cost per ton. No additional pins are required to secure the tip to the coupler.



Side Pin Coupler & Pin



Wedge & Spool Coupler & Pin

X-3 TIP OPTIONS

CapSure retention is built into each tip, eliminating the need to inventory and assemble separate retainers. One turn with a common square drive will lock or unlock the tip. Your Cat dealer can help you choose the tip that offers the right balance of penetration and wear life for your application.



X3-CL
This general purpose Centerline tip provides excellent penetration in impact and abrasion applications.



X3-CLA
This Abrasion Centerline tip is ideal for moderate impact and high-abrasion applications. It's 12 percent longer than the Centerline tip.



X3-TS
For easy penetration in moderate impact, high-abrasion applications, this Long Split tip has 40 percent less leading-edge material compared to the Centerline tip.



X3-BC
This general-purpose Below Centerline tip for moderate abrasion, high-impact applications is angled down 15 degrees to optimize penetration. The paneled bit also aids penetration and self-sharpening.



X3-BCA
This Heavy Duty Below Centerline tip for extreme top abrasion and high-impact environments is most common in dragline applications. Angled down 15 degrees to optimize penetration, it's 17 percent longer and features 70 percent more wear material than the Below Centerline tip.



X3-BCA TS
This combination of Split and Long Below Centerline tips is typically used in low-impact and extreme abrasion applications where aggressive penetration is needed. It's angled down nine degrees and has 85 percent more wear material than the Below Centerline tip.

MADE AS ORDERED (MAO) OPTIONS AVAILABLE
Custom offerings are available from your Cat dealer for your application.

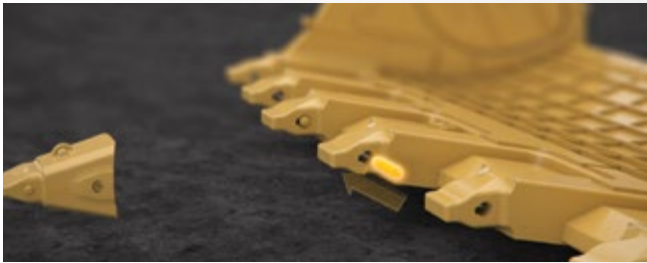
INSTALLATION & REMOVAL

X-3 COUPLER INSTALLATION

Follow these three simple steps for fast, safe and easy installation and removal:

1

Insert pin into nose base hole.



2

Slide coupler onto nose base.



3

Rotate CapSure retainer 180° into locked position.



TIP INSTALLATION

Follow these two simple steps for fast, safe and easy installation and removal:

1

Slide tip onto coupler.

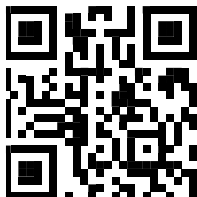


2

Rotate CapSure retainer 180° into locked position.



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



HAMMERLESS G.E.T. FOR HYDRAULIC MINING SHOVELS - FABRICATED EDGES

DESIGNED FOR YOUR CAT MACHINE

Increase your operational efficiency and productivity when you choose hammerless Cat G.E.T. for your hydraulic mining shovel. Only Cat G.E.T. is supported by your Cat dealer, who cares for all your equipment needs.

SIMPLIFY INSTALLATION

Retainer is built into the tip.

SPEED UP CHANGE-OUT

Lock or unlock with just one turn.

ENHANCE JOBSITE SAFETY

No special tools are required to service this hammerless system.



X-2 SYSTEM OVERVIEW

The X-2 class adapters are welded to our fabricated base edges that provide industry-leading durability. Hammerless shrouds protect the base edge, while conventional pins secure the wing shrouds. Four tip shapes are available to help you be productive in any application. All hammerless components feature CapSure retention that is serviced with a simple square drive.



MODEL	SIZE CLASS	ADAPTERS AVAILABLE
6015B	70	100mm
6018	70	100mm
6020B	85	100mm
6030	85	120mm
6018 FS	85	120mm
6030 FS	95	140mm
6040	95	140mm

X-2 LIP & WING PROTECTION

Shrouds are easily secured to the edge with our retention boss. CapSure retention is built into each shroud, eliminating the hammer and need to inventory and assemble separate retainers. One turn with a common square drive will lock or unlock the shroud.



Change the worn protector by driving out the pin.

X-2 ADAPTERS

The side pin design supports CapSure retention for fast, hammerless removal of the tip. The replaceable pin ensures a secure fit each and every time. Straddle leg adapters reduce corner stress and the time associated with adapter and sidebar maintenance.



Center Adapter



Corner Adapter - Straddle Leg

X-2 TIP OPTIONS

CapSure retention is built into each tip, eliminating the need to inventory and assemble separate retainers. One turn with a common square drive will lock or unlock the tip. Your Cat dealer can help you choose the tip that offers the right balance of penetration and wear life for your application.



X2-GP
X2-GP tips are symmetrical and the baseline for other tip styles.



X2-A
X2-A tips are for high-abrasion applications and feature approximately 62 percent more wear material than the X2-P tip.



X2-P
X2-P tips are ideal for densely compacted material. They feature a leading-edge profile that is 50 percent sharper than the X2-GP style.



X2-I
X2-I tips are 25 percent stronger than the X2-GP to withstand high-impact applications.

MADE AS ORDERED (MAO) OPTIONS AVAILABLE
Custom offerings are available from your Cat dealer for your application.

TIP INSTALLATION

Follow these three simple steps for fast, safe and easy installation and removal:

- 1** Insert pin into nose base hole.



- 2** Slide tip onto nose base.



- 3** Rotate CapSure retainer 180° into locked position.



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



LIP SHROUD INSTALLATION

Follow these three simple steps for fast, safe and easy installation and removal:

- 1** Insert retention boss.



- 2** Slide lip shroud onto lip.



- 3** Rotate CapSure retainer 180° into locked position.



WING SHROUD INSTALLATION

Follow these three simple steps for fast, safe and easy installation and removal:

- 1** Insert washers through lip pin holes.



- 2** Install wing shroud on lip.



- 3** Insert pins to secure wing shroud in place.



HAMMERLESS G.E.T. FOR ELECTRIC ROPE SHOVELS (ERS)

FAST TO INSTALL, SLOW TO WEAR.

The industry standard for electric rope shovels (ERS), the Whisler style adapter is matched with CapSure retention—making installation and removal quick and safer than hammered alternatives.

IMPROVE SAFETY

Installation and removal is safer with our hammerless screw-drive adapter retainer.

SPEED UP CHANGE-OUT

One retainer, one turn, means fast and easy change-outs.

SIMPLIFY INSTALLATION

No piece part assembly—CapSure retention system is built into the component.



X-4 SYSTEM OVERVIEW

Designed and built by Caterpillar for your Cat electric rope shovel, our X-4 portfolio of G.E.T. offers the right mix of performance and protection. A variety of tip styles and an integrated adapter wear cap complement two adapter retention options.



HAMMERLESS RETENTION



ADAPTER & INTEGRATED WEAR CAP

ADAPTER & EDGE PROTECTION

The Whisler style adapter is secured to the lip with either hammerless or traditional C-clamp and wedge retention. The hammerless wedge retention assembly is often reusable, helping to lower your operating costs.

GET MORE FLEXIBILITY

Hammerless and traditional designs are available.

SIMPLIFY INSTALLATION

Tapered adapter slot provides quick and easy wear cap installation and removal.



Adapter & Retention System

Wear Cap
The wear cap removes easily due to a tapered fit with the adapter.

INSTALLATION & REMOVAL

Follow these four simple steps for fast, safe and easy installation and removal:*

1

Position adapter onto dipper edge.

2

Insert C-clamp.

3

Insert wedge assembly and tighten.

4

Torque wedge assembly to specifications.

* See dealer for procedures.

TIP OPTIONS

Choose from five tip profiles designed for a broad range of applications. Your Cat dealer can help you select the option that offers the right balance of penetration and wear life for your jobsite.

	X4-GP X4-GP tips are symmetrical and the baseline for other tip styles.
	X4-PLA X4-PLA tips are designed for high-abrasion, low-impact applications where penetration is critical. They are 17 percent longer and have four percent more wear material in the tip body.
	X4-A X4-A tips feature approximately 27 percent more wear material than the X4-GP tip.
	X4-P X4-P tips are ideal for densely compacted material. They feature a leading-edge profile that is 83 percent sharper than the X4-GP style.
	X4-I X4-I tips are 16 percent stronger than the X4-GP to withstand high-impact applications.

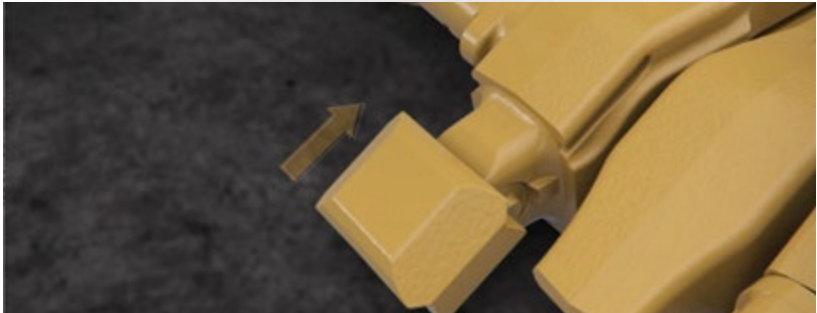
MADE AS ORDERED (MAO) OPTIONS AVAILABLE
Custom offerings are available from your Cat dealer for your application.

TIP & WEAR CAP INSTALLATION & REMOVAL

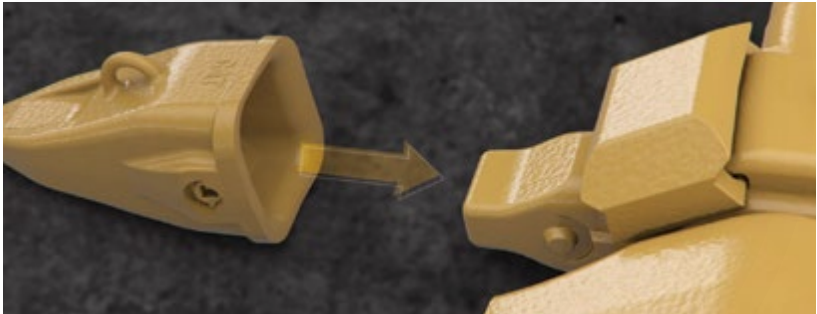
It’s safe and easy—just follow this three-step hammerless process:

- 1

Slide wear cap onto tapered slot on adapter.


- 2

Slide tip onto adapter.


- 3

Rotate lock 180° with a 19mm square drive.





Scan the QR Code above to watch the installation video.

LIP SHROUDS WITH CAPSURE RETENTION

FAST, EASY, ONE-PIECE PROTECTION.
Get superior penetration and lip protection with the Whisler hammerless shroud system.

SHORTEN CHANGE-OUT TIME	One turn locks/unlocks retainer.
ENHANCE SAFETY	Hammerless CapSure system allows for fast, easy installation and removal while reducing the risk of injury.
LOWER YOUR COSTS	Retention boss is reusable, reducing your owning and operating costs.

INSTALLATION & REMOVAL
It's safe and easy—just follow this three-step hammerless process:*

- 1

Weld retention boss onto edge.


- 2

Slide edge shroud over retention boss.


- 3

Rotate 180° to lock.





WING SHROUDS

BALANCED PROTECTION AND PENETRATION.
With a wing shroud, you can protect the structural integrity of your bucket and sustain enhanced penetration.

REDUCE YOUR COSTS	Wing shroud shields the bucket edge to minimize wear and maintenance.
SIMPLIFY REMOVAL	Pin-on retention requires no special tools.



MADE AS ORDERED (MAO) CUSTOM PRODUCTS

Bucket and blade products are continually refined as they work and wear, so the G.E.T. solution often needs to be “tailored” to your unique wear environment. Your Cat dealer can provide that custom product for your application.

OVERLAY PRODUCTS

Abrasion Resistant Material (A.R.M.) and Plasma Resistant Material (P.R.M.) can be applied to G.E.T. components to extend their life.



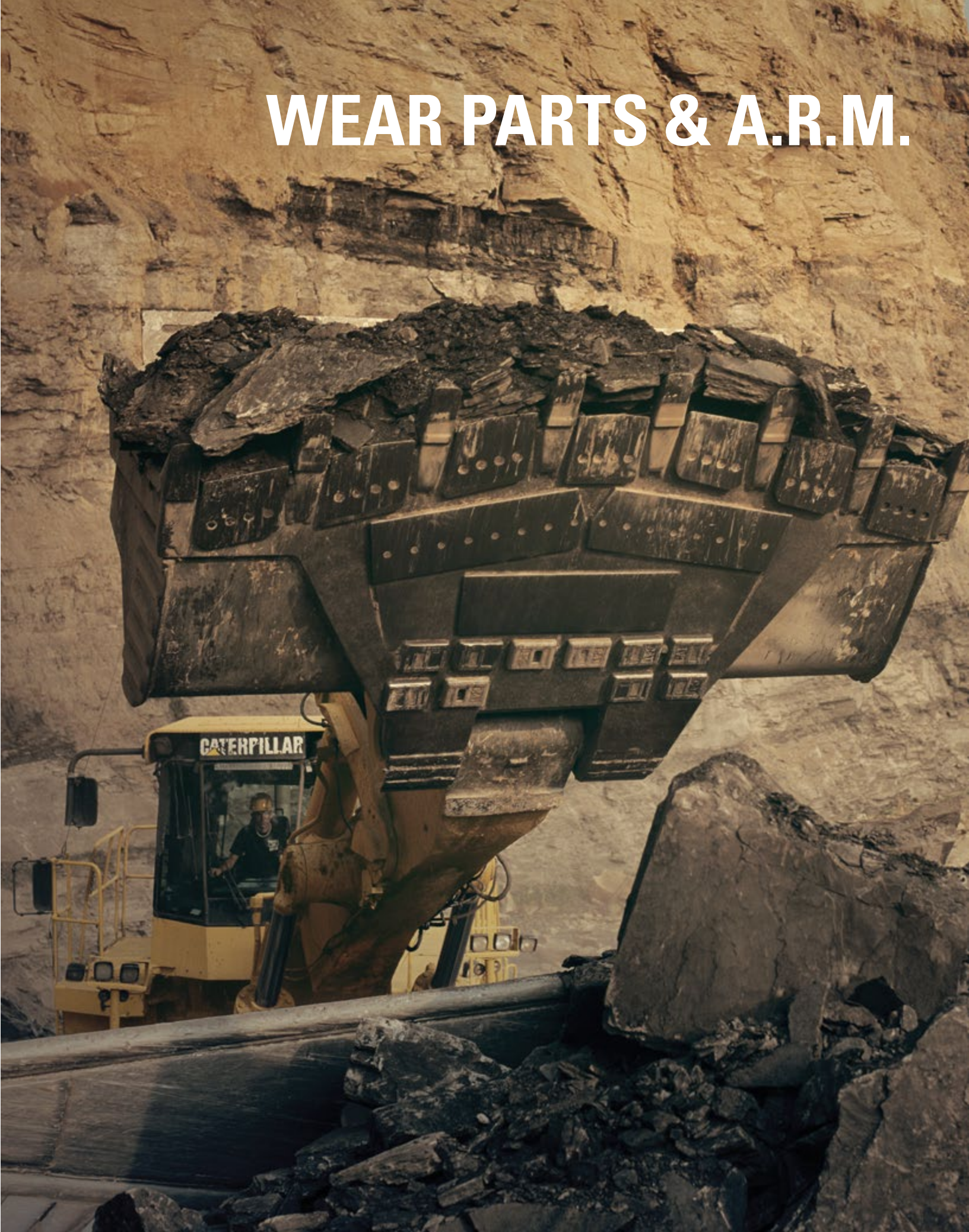
Custom base edges and cutting edges are available for your bucket.



CASTINGS - LIP SHROUDS, COUPLER, TIPS



WEAR PARTS & A.R.M.



MECHANICALLY ATTACHED WEAR PLATE SYSTEM (MAWPS)

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

INCREASE YOUR UPTIME

Two minute change-out—no hammer required.



LOWER YOUR INVENTORY COSTS

Flexible, versatile system welds to flat and curved surfaces.

SIMPLIFY INSPECTIONS

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

EXTEND WEAR LIFE

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

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 (2x 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 (2x per year)	\$4,000	\$83	\$4,083
			\$8,683 or \$4.34/hour

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.



Solid MAWPS

Skeletal MAWPS

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.



EASY INSTALLATION & REMOVAL

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

1

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

2

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

3

Install one end of the compression retainer with the plug and pry it into place with an 8mm-wide small pry bar.

4

Clean, use pry bar to remove the compression retainer, and slide the wear plate off the base plate.



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

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



SIZE	MACHINE
50 Series	5230, 994
40 Series	993, 5130, R2900
30 Series (available with A.R.M.)	992, 990, 5080, 374-390
	R1700, R1600
20 Series (available with A.R.M.)	980 and down
	365 and down
	Trucks
10 Series	972 and down
	320-349
	R1300

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

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

EXTEND WEAR LIFE

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.

SIMPLIFY REMOVAL & INSTALLATION

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

INCREASE YOUR FLEXIBILITY

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.



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.



Chocky bars in application



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.

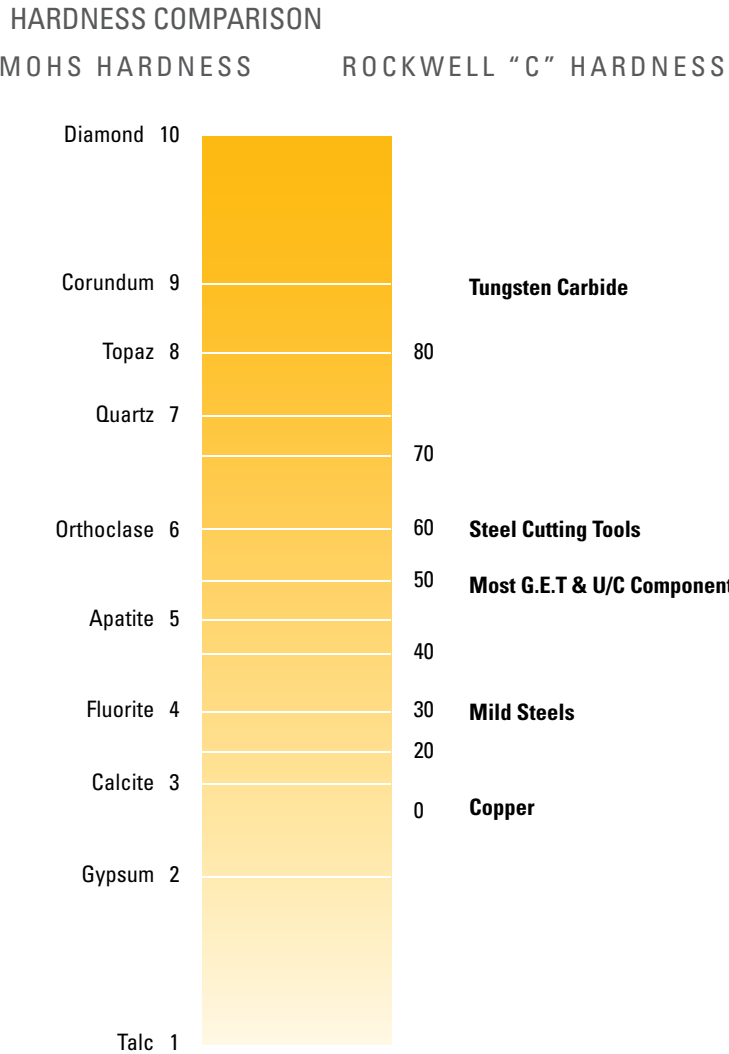
EXTEND YOUR WEAR LIFE

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.

EXAMPLE PARTS WITH A.R.M. APPLIED



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



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Wheeler

