

MINING PRODUCTS



IT'S A BIG WORLD
LET'S MOVE IT!

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EXTREME SERVICE HIGH PERFORMANCE, LASTING VALUE

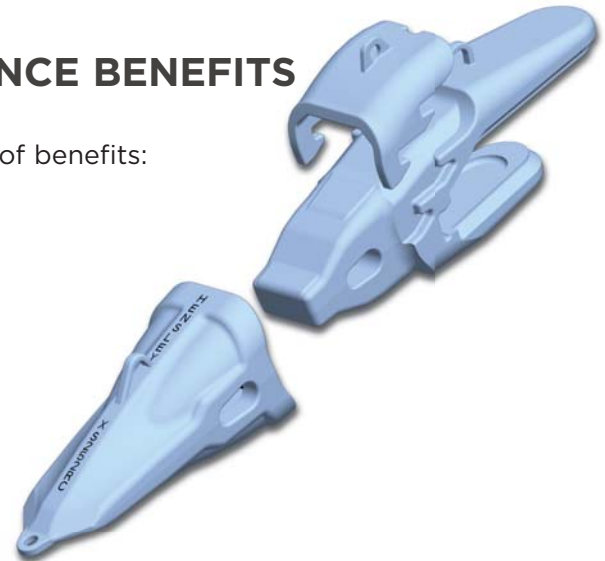
Mining operations worldwide depend on the safe, cost effective performance of Hensley G.E.T. systems. The XS² G.E.T. system with its new square nose design uses strength, durability, performance and productivity to the extreme.

We know what it takes for earth moving equipment to run efficiently and cost effectively. Our engineers analyzed where and how these machines operate, and designed a system with a wide range of safe, economical and hard-working solutions. Years of research and testing have helped us create one of the most productive, cost effective and user-friendly systems available.

THESE SYSTEMS OFFER HIGH PERFORMANCE BENEFITS

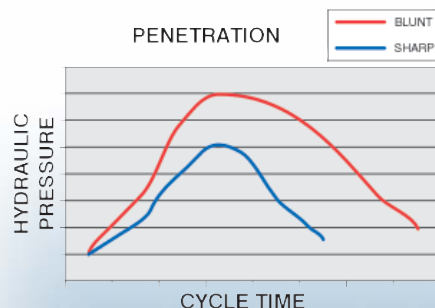
Hensley Engineering has created a unique G.E.T. System. The XS² System is patent protected and offers an impressive list of benefits:

- Better penetration
- Through hardness
- Unique high strength design
- Reusable fastener
- Less “throw away”, more usable steel
- Faster tooth change out
- Reversible tooth
- Mechanical wear cap adapters available



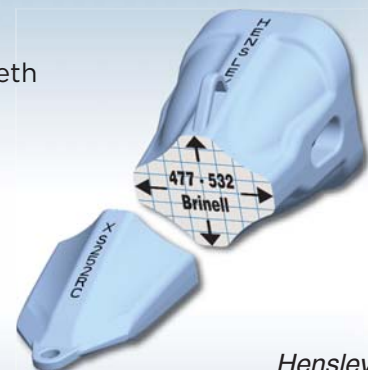
EXTREME DURABILITY HARDNESS RIGHT TO THE CORE

XS² System teeth are manufactured to a higher standard. All XS² System teeth are heat treated to meet critical specifications for strength and durability, not only on the surface but right to the core.



BETTER PENETRATION REDUCES CYCLE TIMES

The XS² System's streamlined design and self-sharpening teeth contribute to better penetration. This reduces cycle times, requires less hydraulic pressure, improves fuel consumption and overall production.

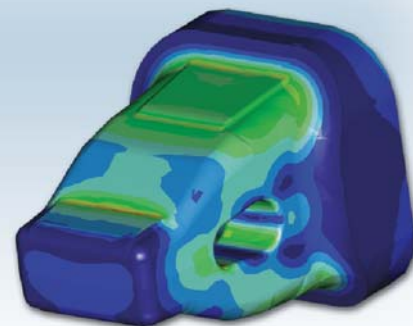


*Hensley
heat treatment
produces a 477-532
Brinell level of hardness
throughout the tooth.*

EXTREME STRENGTH/PERFORMANCE

THE STRONGER THE NOSE, THE LONGER LASTING THE SYSTEM

We've got the right tooth shape for all your application needs. The XS² System has a unique square nose design that combines strength and durability with a one-piece, hammerless pin for quick, safe installation and maintenance. The XS² System nose has a design that reduces areas of stress concentration under load.



EASY INSTALLATION, QUICK CHANGE-OUT

Easy and quick installation and replacement is a great advantage of the XS² System. It just takes minutes to change teeth. Simply unlock the fastener with a socket wrench, remove the worn tooth, put on a new tooth and you're ready to go back to work.

STEP 1

As shown, place tooth onto adapter, always observing proper safety procedures.



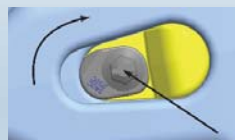
STEP 2

Insert fastener, making sure it is in the unlocked position.



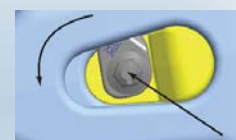
STEP 3

To lock, use the correct size socket, rotate the pin locking shaft 90° clockwise to finish the installation.



STEP 4

When removing the fastener, use the correct size socket to rotate the pin-locking shaft 90° counter-clockwise.



EXTREME PRODUCTIVITY

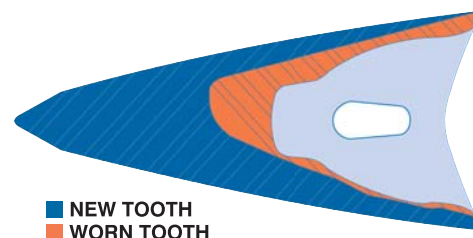
HIGHER CONSUMPTION RATIO, 60% PLUS CONSUMABLE STEEL

XS² System teeth are designed for maximum strength and consumption ratios without unnecessary bulk. XS² teeth remain sharp and penetrate longer, so you can work longer.

The Tooth Consumption Ratio for ground engaging tools indicates the percentage of available wear material on the whole tooth. The greater the ratio, the better the value because more of the tooth is used and less is thrown away.

For example, a 25 lb. tooth with a 40% consumption ratio yields 15 lbs. of scrap material when the tooth wears out. A 25 lb. tooth with a 60% consumption ratio would only scrap 10 lbs. of material.

Bottom line, the XS² System gives you longer life, improved performance and less waste.



■ NEW TOOTH
■ WORN TOOTH

The XS² RC style tooth shown here offers a consumption ratio of 60%.

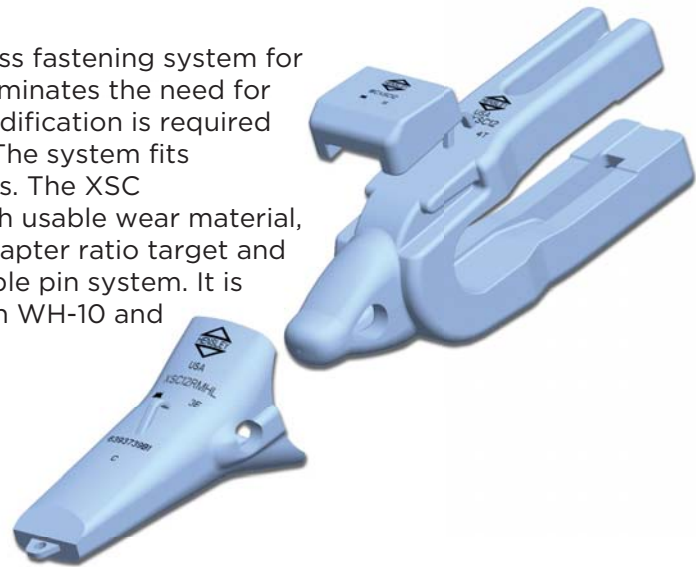
XSC CABLE SHOVEL SYSTEM

XSC SYSTEM

SAFE AND EASY TO INSTALL IN THE FIELD



Hensley's hammerless fastening system for Whisler adapters eliminates the need for hammers. No lip modification is required for the installation. The system fits standard Whisler lips. The XSC System features high usable wear material, a 12 to 1 tooth-to-adapter ratio target and a cost-saving reusable pin system. It is currently available in WH-10 and WH-12 sizes.



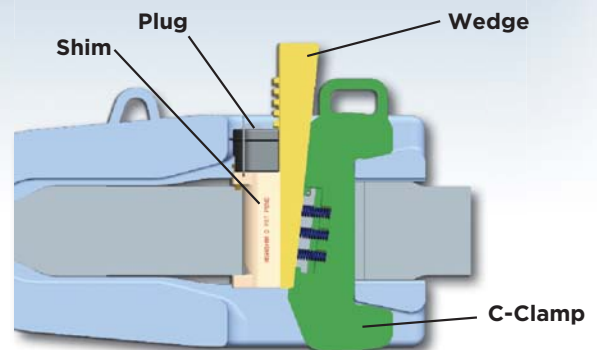
HAMMERLESS FASTENING SYSTEM FOR WHISLER ADAPTERS & TOOTH SYSTEM

System Features:

- Safe and easy - no hammer needed for installation or removal.
- No lip modification required. Fits standard Whisler lips.
- Quicker adapter change out.
- Hammerless adapter fasteners available for WH-10 and WH-12.
- Eliminates need to work under dipper.
- The newly designed adapter nose and tooth pocket is engineered to create a tight tooth-to-adapter fit for extended wear life and greater efficiency.

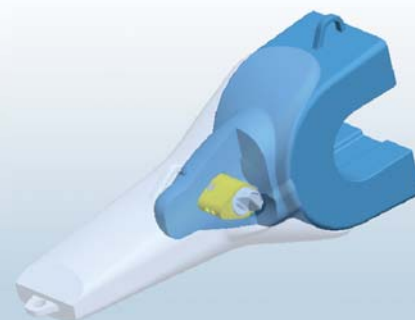
System Benefits:

- Adapter
 - Tooth to adapter ratio - 12 to 1 Target
- Tooth
 - High usable wear material
 - High dipper fill factor
 - Reusable pin system
 - Multiple tooth styles available
 - Tooth design helps material flow away from adapter to prolong adapter life.



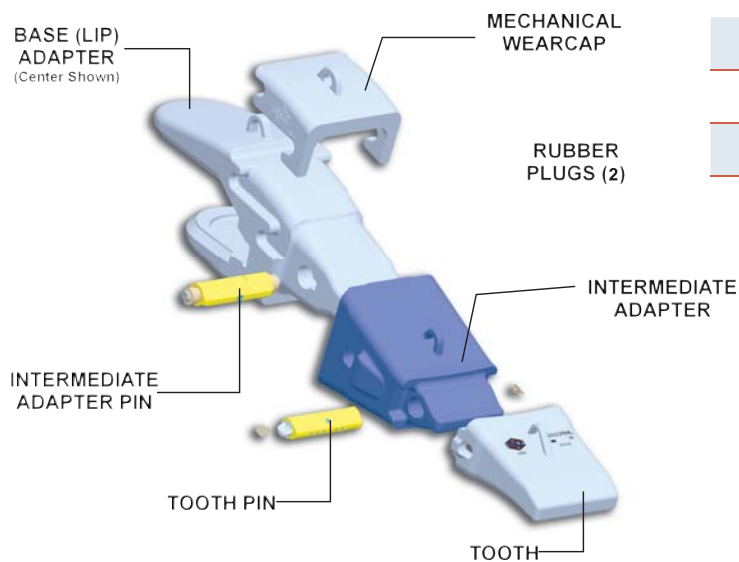
← Front of the lip

Cross-section of complete assembly.



Reusable hammerless pin

TS SYSTEM FOR DRAGLINES AND HYDRAULIC EXCAVATORS SPECIALLY DESIGNED FOR EASE OF INSTALLATION AND PENETRATION



TS Series	Dragline Bucket	Excavator Class
TS 922	14 to 54 m³	400 ton
TS 1122	42 to 76 m³	500 ton
TS 1222	50 to 115 m³	800 ton

The more work you throw at Hensley TS Series teeth and adapters, the more you will appreciate their value in your operation. Components are specially designed to deliver maximum penetration and faster cycle times. Hensley's high quality steel standards and uniquely engineered TS System design minimizes downtime, maximizes productivity and is designed for virtually every application.

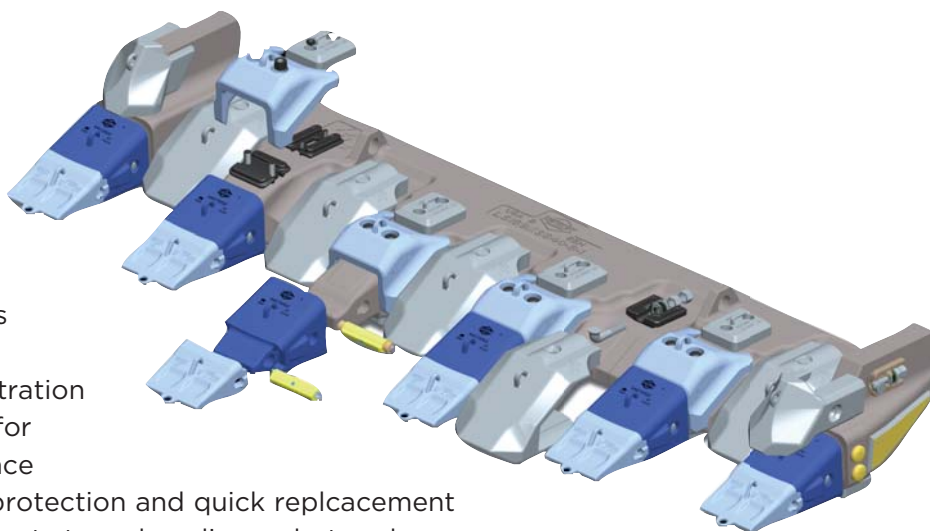
- Totally hammerless design
- Reusable intermediate adapter pin and tooth pin
- Stabilizer on nose for tighter tooth-to-adapter fit

- Low profile shape for reduced stress
- Multiple tooth styles available

CAST LIPS AVAILABLE IN 163", 169" & 201" SIZES

To achieve the highest levels of productivity, consider using Hensley cast lips for your next lip replacement or new bucket.

- Available in multiple wear packages (wear package 4A shown)
- Streamlined design for better penetration
- Manufactured of high quality steel for superior strength and wear resistance
- Mechanical wearcap added for lip protection and quick replacement
- Full protection in between components to reduce lip washot and wear
- J-bolt shrouds are designed for easy and safe installation and removal
- TS Series teeth and adapters are designed for safe and easy installation and replacement
- Available for the 500 ton to 800 ton class hydraulic excavators

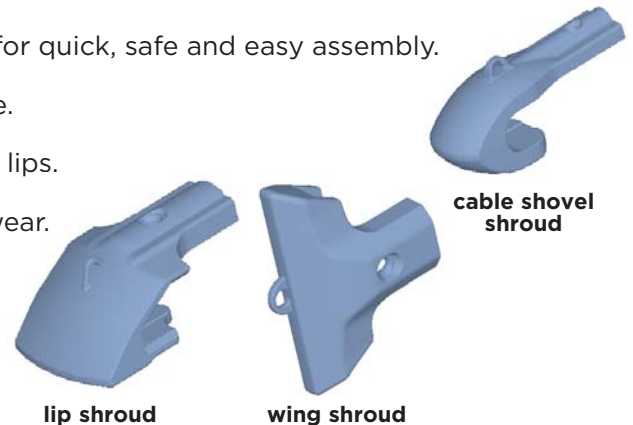


WEAR PROTECTION

J-BOLT SHROUDS-GENERAL

Hensley's J-Bolt Lip Shrouds offer a quick and effective solution to add wear protection. Available for hydraulic excavators, loaders and LHD tram buckets. Some simple welding is required for the installation of the mounting base to the lip. The shrouds are mechanically attached by glue to the base making installation, removal and replacement as easy as turning a socket. Mechanically attached shrouds are made from a harder alloy achieving greater wear and abrasion resistance than weld-on shrouds.

- The Hensley J-Bolt Lip Shrouds are a mechanical system for quick, safe and easy assembly.
- Higher hardness than weld-on shrouds for longer wear life.
- Currently available for 2" (51mm) through 6-1/4" (159mm) lips.
- Mechanical system is self-tightening to the lip, reducing wear.
- Shroud changes are quick, and downtime reduced.
- Safe installation and removal.



LAMINITE®

Laminite delivers the ultimate protection against impact and high abrasion in some of the harshest conditions. The result: reduced maintenance and less downtime.

Available in a variety of shapes and sizes, Laminite is easily installed to most high wear areas on mining and earth moving equipment, or any application needing extreme protection.

- Laminite® is a combination of high chromium white iron metallurgically bonded to a mild steel backing plate. The white iron has a hardness of at least 700 Brinell providing incredible abrasion resistance protection to your equipment. The mild steel backer plate is easily weldable with minimal preparation.

APPLICATIONS

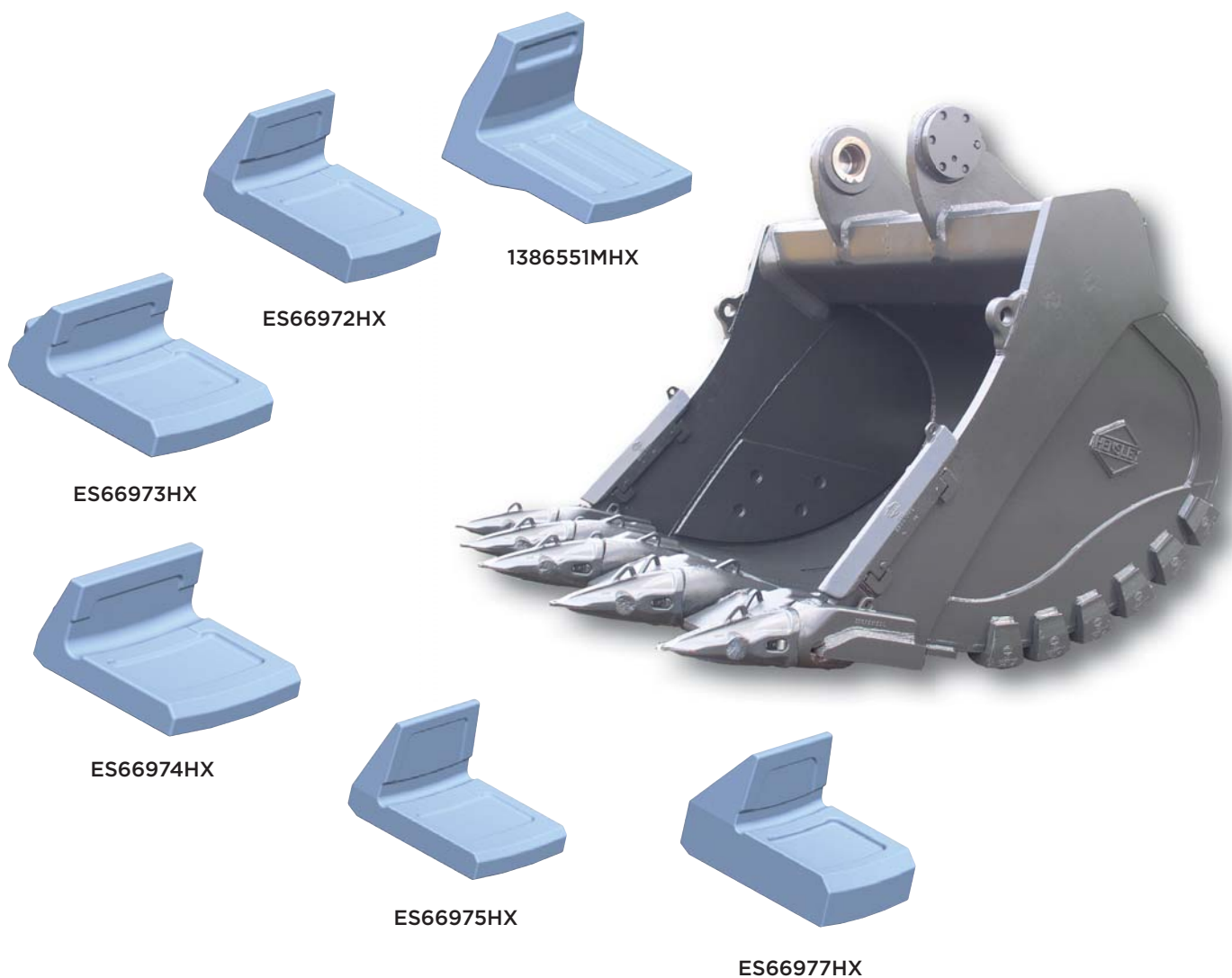
- Weld-on Adapters and Wear Caps
- Dragline Bucket Protection
- Excavator Bucket Protection
- Conveyor Chute Liners
- Feeder Deck Plates
- Quarry and Mining Grizzly Screens
- Truck Bed Liners



WELD-ON SHROUDS

Hensley Weld-on Bucket Heel Shrouds are designed to protect high wear areas such as the corner edges on excavator, loader and face shovel buckets. These cast Heel Shrouds are 300+ Brinell and provide superior wear protection.

BOLT-ON HEEL SHROUD	WEIGHT
ES66972HX	45 lbs / 20.4 kg
ES66973HX	28.5 lbs / 12.9 kg
ES66974HX	22.30 lbs / 10.1 kg
ES66975HX	84 lbs / 38.1 kg
ES66977HX	187 lbs / 84.9 kg
1386551MHX	38.2 lbs / 17.3 kg



WEAR PROTECTION

LHD (J-BOLT & WELD-ON EDGE SYSTEM FOR LHD TRAMS)

Hensley offers a J-Bolt Edge System for LHD (load-haul-dump) tram loaders. This patented system offers maximum bucket lip protection plus several advantages over conventional weld-on shrouds.

- The Hensley J-Bolt Edge System is designed as a bolt-on system for quick and easy assembly (some initial welding required).
- Constructed of harder alloy for longer wear life.
- The low profile/sharp contour design gives better penetration, reducing cycle times and overall wear on tires and machine.
- Complete shroud changes in minutes rather than days.

The Hensley J-Bolt Edge System gives you increased wear life, greater productivity and faster change-outs.

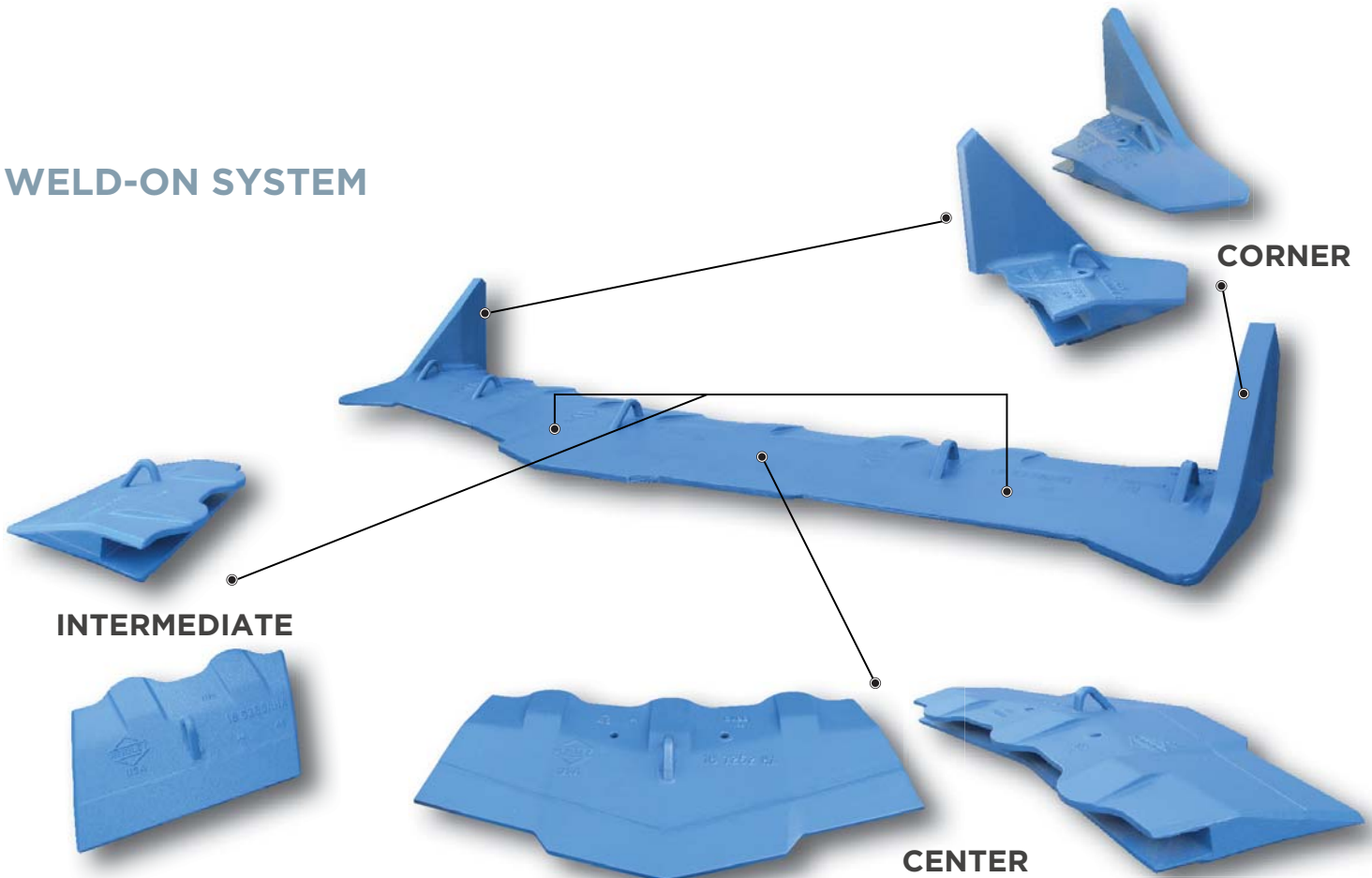
Hensley also offers a weld-on edge system for LHD tram loaders.

- Constructed of harder alloy for longer wear life
- The low profile/sharp contour design gives better penetration, reducing cycle times and overall wear on tires and machine.
- Can be used with buckets that have ejector plates.

J-BOLT EDGE SYSTEM



WELD-ON SYSTEM



PRODUCTS FOR HYDRAULIC EXCAVATORS

Hensley offers a complete line of direct replacement parts for mining G.E.T., and a wide selection of replacement parts for OEMs to be used with Hensley excavator buckets and most other bucket brands. We also offer our Dura brand as a high quality and low cost alternative.



SIDECUTTERS

Hensley J-bolt style wing shrouds are designed to protect your bucket and improve productivity. The J-bolt design makes for quicker installations and removals.



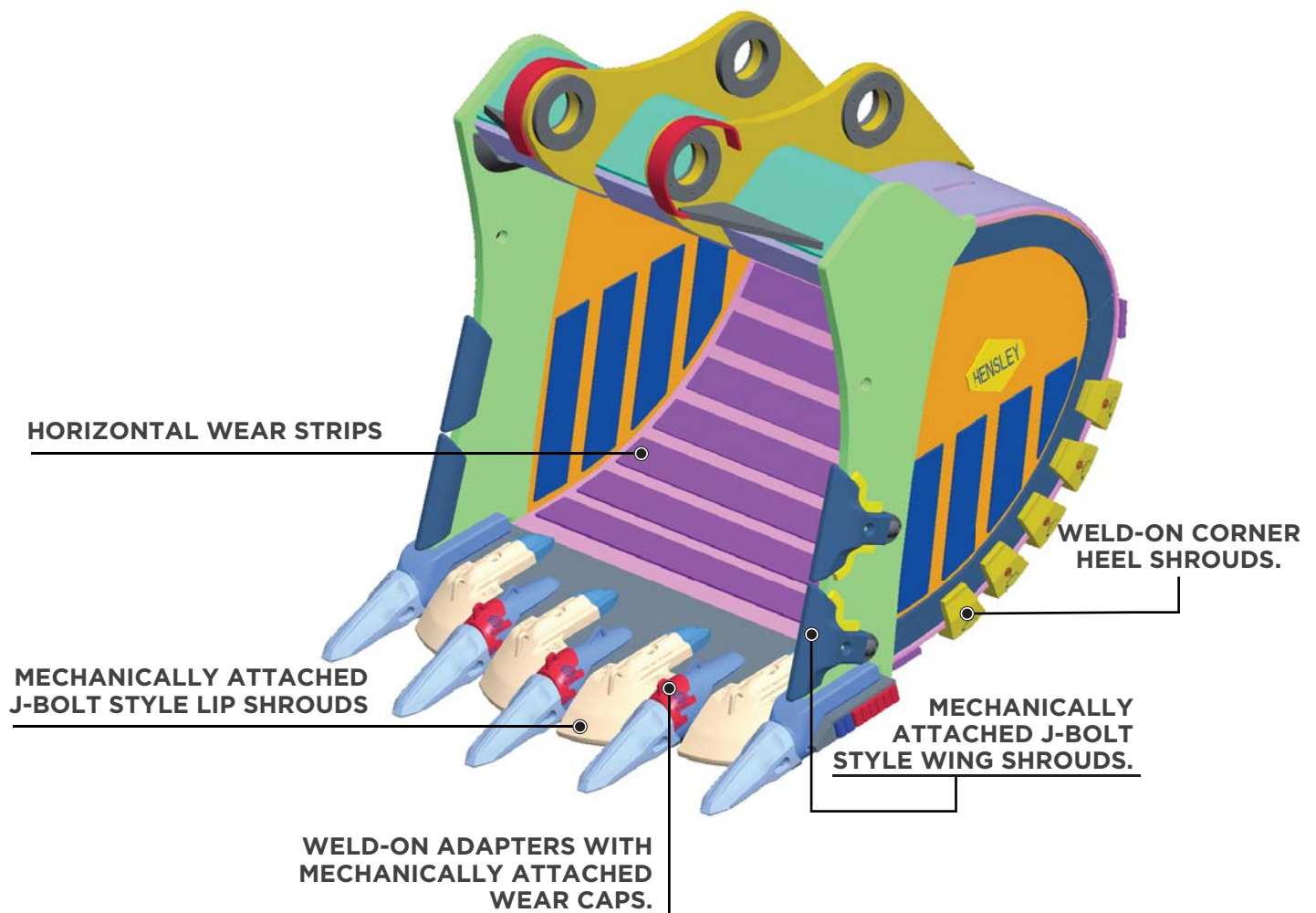
LIP SHROUDS

Hensley has a wide range of universal lip shrouds available in weld-on, and J-bolts styles for virtually any machine.



CAST CORNER SHROUDS

Hensley offers a large selection of weld-on corner shrouds that can be easily added to any bucket subject to this type of wear.



PRODUCTS FOR HYDRAULIC EXCAVATORS



VERTICAL SHROUDS

Hensley offers a large selection of vertical shrouds with different styles and sizes to match a wide range of equipment.



LAMINITE®

Laminite® specialized wear protection products offer Pieces are easily weldable and come in several styles and sizes to offer truly customizable wear protection.



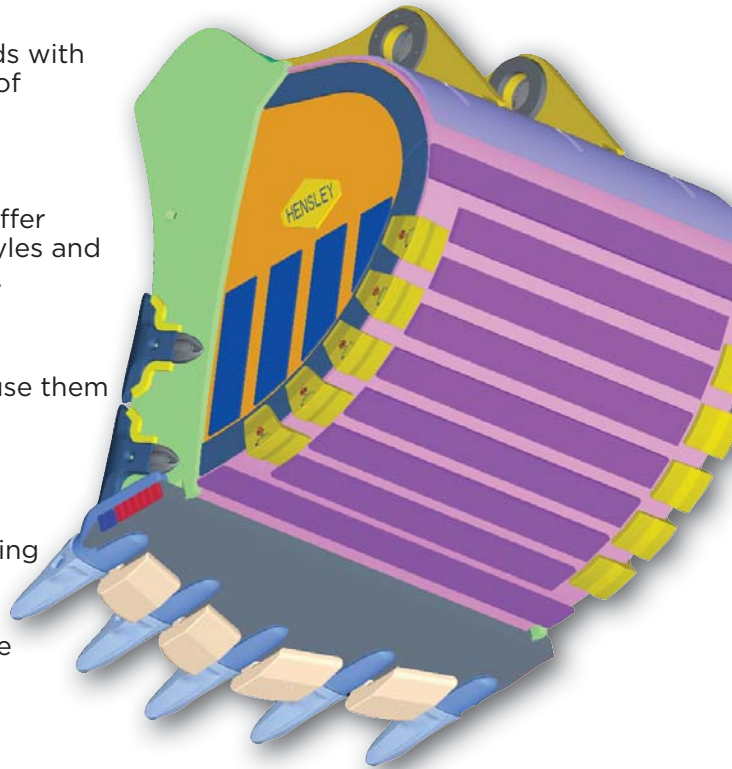
WEAR STRIPS

Horizontal and vertical wear strips offer abrasion resistance to your bucket. Made of harder alloy, use them to protect the inside and outside of your bucket.



BOLT-ON WEAR RUNNERS

Hensley wear runners extend equipment life. Designed for end-to-end or side-to-side positioning on all high-wear areas, they provide continuous protection against severe abrasion. Fast, easy change-out is made possible by the weld-on base and bolt-on runner design.



PRODUCTS FOR WHEEL LOADERS

Even in the most extreme conditions, Hensley wear protection products deliver exceptional performance and value. Easy to assemble and install, Hensley products for wheel loaders reduce downtime and maximize productive uptime.



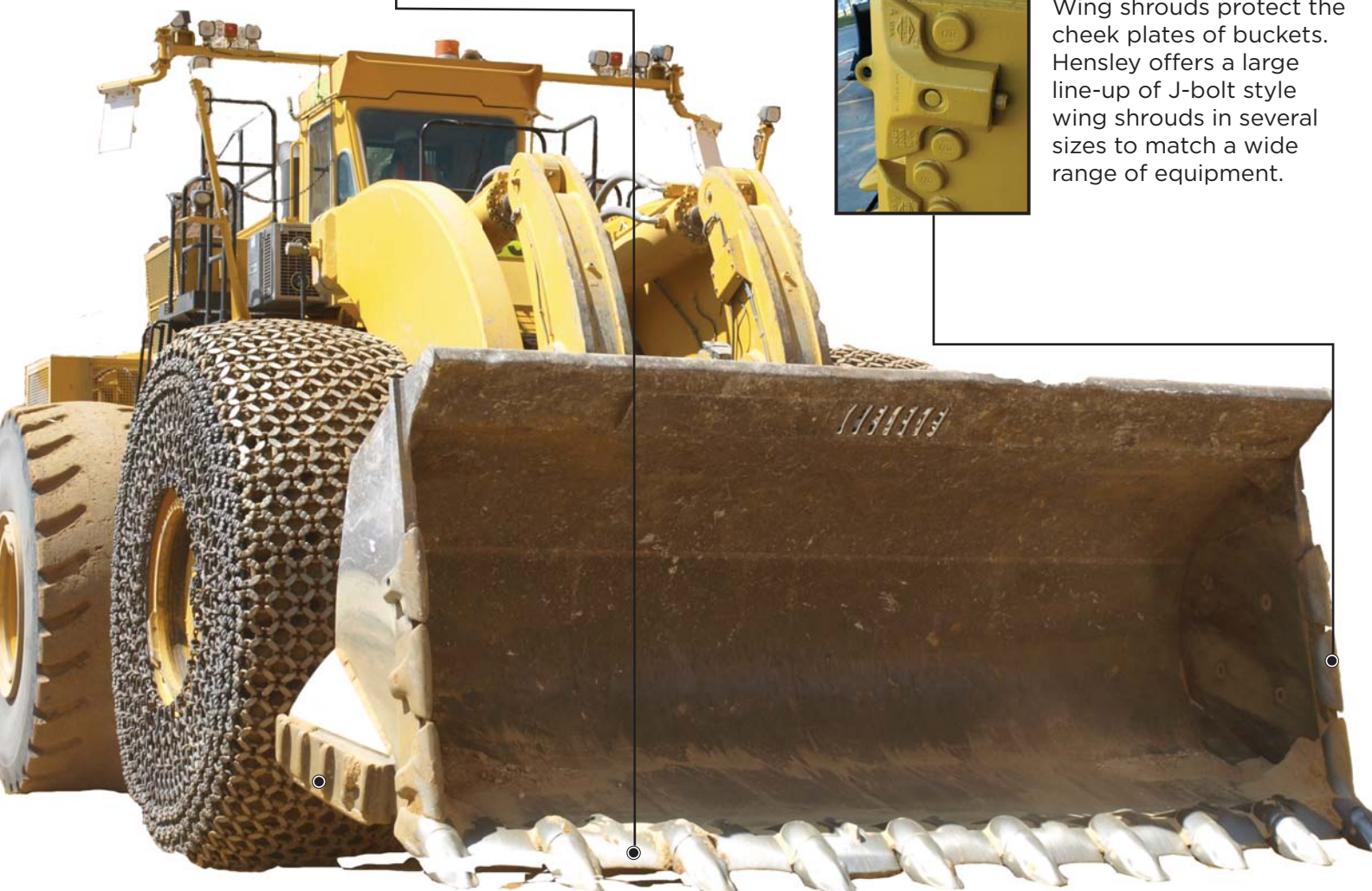
LIP SHROUDS

Without lip shrouds the leading edge of the bucket is exposed to constant abrasive wear. Hensley has a wide range of J-bolt style lip shrouds for virtually any machine.



WING SHROUDS

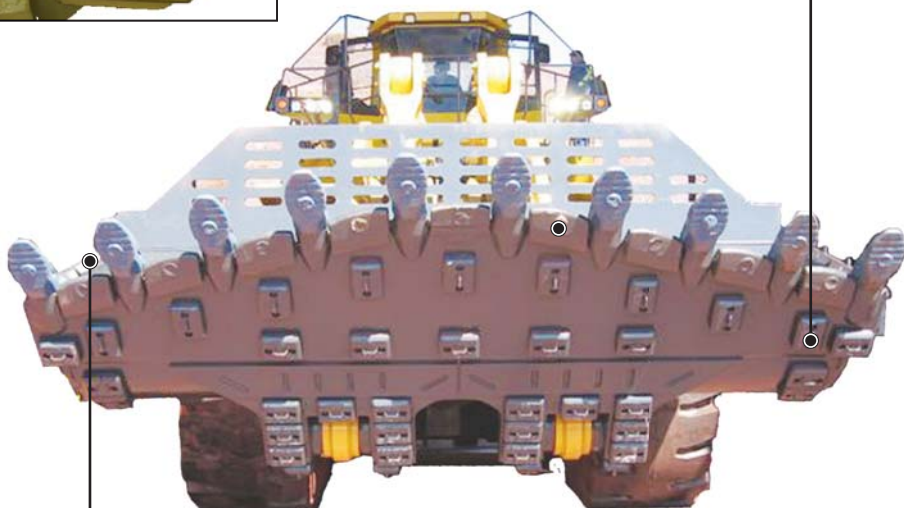
Wing shrouds protect the cheek plates of buckets. Hensley offers a large line-up of J-bolt style wing shrouds in several sizes to match a wide range of equipment.



PRODUCTS FOR WHEEL LOADERS

BOLT-ON WEAR RUNNERS

Hensley wear runners extend equipment life. Designed for end-to-end or side-to-side positioning on all high-wear areas, they provide continuous protection against severe abrasion. Fast, easy change-out is made possible by the weld-on base and bolt-on runner design.



VERTICAL SHROUDS

Vertical shrouds protect the cheek plates of excavator and loader buckets. Hensley offers a large selection of vertical shrouds with different styles and sizes to match a wide range of equipment. Proprietary systems are available to retrofit any bucket and offer the convenience of a pin-on system that offers easy replacement. Universal weld-on shrouds and direct replacements are also available.

OPTIONAL WEAR PROTECTION:



SEGMENTS & TOP COVERS

A full line available which consists of both rolled and cast steel versions of loaders lip protection for the major loader manufactures. The combination of bottom and top lip protections is provided by both segments and top covers.



LAMINITE®

Laminite® delivers the ultimate protection against impact and high abrasion in some of the harshest conditions. The result: reduced maintenance and less downtime.

PRODUCTS FOR DOZERS

Hensley's extensive line of ripper and edge protection systems offers a range of hard-working solutions for large dozers.



BOLT-ON EDGES

A complete line of cast, bolt-on edge systems feature harder steel for longer life, and the best combination of impact and abrasion resistance. Available in both cast and rolled steel.



SHANK GUARDS

Mechanically attached lower ripper shank protection for mid to large size dozers.



TUNGSTEN CARBIDE AVAILABLE

Use carbide to increase the wear protection for cast or rolled steel blades and end bits.



END BITS

Standard or heavy duty bits available in cast or rolled steel.



RIPPER TEETH

Multiple tip options available to maximize penetration.

RIPPER SHANKS

Complete Ripper Shanks are available for Komatsu and Cat® dozers and other mid to large size dozers.

WELD-ON NOSES & LOWER SEGMENTS (NOT SHOWN)

For repairs of damaged or broken ripper shanks.

CAT® AND CATERPILLAR® ARE REGISTERED TRADEMARKS OF CATERPILLAR, INC.



For more product details and contact information, please visit our website.



Hensley Industries, Inc. has been manufacturing and marketing ground engaging tools, buckets and specialized attachments since 1947. We are committed to providing the best service and highest quality products in the world. Our dedication to excellence allows us to help those who use it in the field every day.

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Safety First! Hensley Industries recommends that you use a soft-faced hammer and ANSI (Z87.1) approved eye protection when using our products.

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