

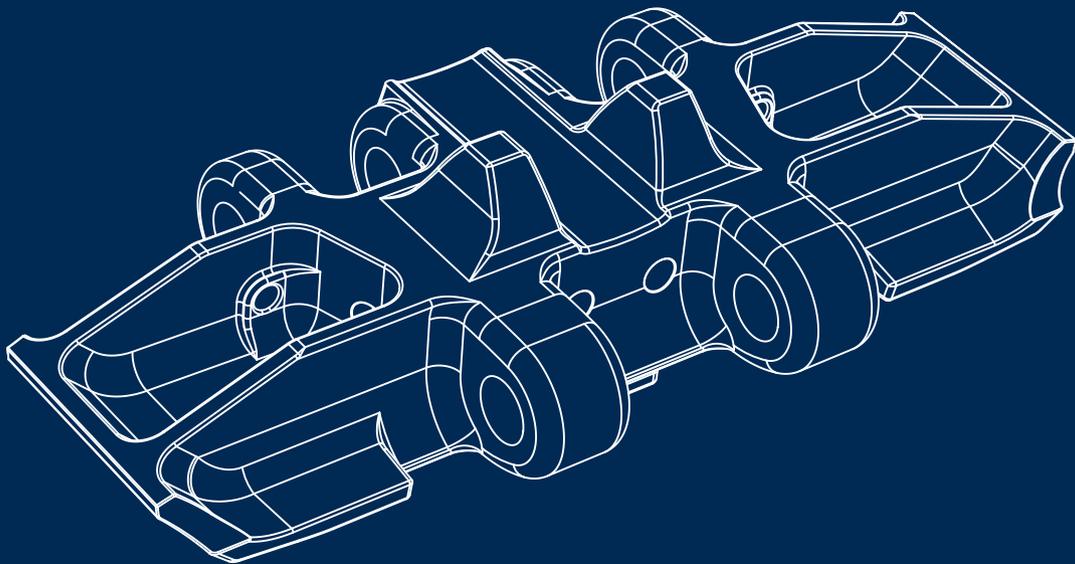
EXCEL™ Replacement parts for Komatsu®/Demag® Hydraulic Excavators



FLS

Improve performance with our spare parts for Komatsu[®]/Demag[®] Hydraulic Excavators

Discover the difference our re-engineered spare wear parts can make in your existing excavator or shovel to increase performance and decrease maintenance.



Benefits

- Increase durability
- Increase longevity
- Consistent high quality
- Reduce maintenance

Extraordinary components do not happen by accident

EXCEL™ bronze bushings and components perform better because our standards are higher.

Higher tensile strength

Tin is the most expensive ingredient in the metallurgy of bronze alloys, but it creates tougher bushings that last longer. We use the maximum percentage of tin to increase your profits. We certify our crusher bronze to the top end of the CDA specification for tin.

Uniform lead distribution

During casting, we use an innovative technique that distributes lead and other alloy grains uniformly. We then use a unique chilling process that ensures the uniform distribution is locked in. Our dedication to lead distribution means that when you use EXCEL™ cast alloys, there is less friction and more defense against heat build-up. In short, our bushings and other cast parts last longer and have fewer problems.



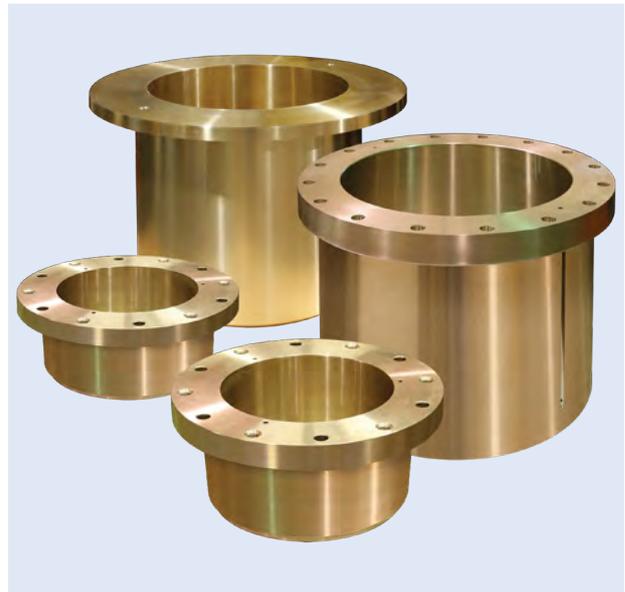
Standard bronze pour from furnace to ladle in our foundry for EXCEL parts, located in Pekin, Illinois, USA

Optimum concentricity

Our competitors are content with bushings that are close enough to concentric. We create perfectly concentric bushings using a unique pinch turning method during machining and cut the inside and outside diameters simultaneously. This process guarantees that your bushings are concentric with no weak spots or deformities and lowers the risk of hot spots.

Porosity-free/uniform grain structure

We begin preparing for casting by selecting the highest grade pure raw materials. The unique centrifugal casting technique that we use produces a tighter, denser grain structure in the alloy and eliminates nearly all gas pockets. What does this mean to you? The cast alloys you buy from us last longer and have significantly fewer defects.



XL40 bronze components

Komatsu®/Demag® Hydraulic Shovel

PC2000™, PC3000™, PC4000™, PC5500™, PC8000™

Component identification



Pins and bushings

- | | |
|--------------------------------------|---|
| A Bucket and bucket cylinder | G Boom and arm |
| B Arm and bucket | H Boom and arm cylinder |
| C Mainframe and boom cylinder | I Mainframe and boom |
| D Arm and arm cylinder | J Bucket cylinder and bottom bucket |
| E Boom and boom cylinder | K Bucket cylinder and bucket back wall |
| F Boom and bucket cylinder | |

Undercarriage components



Idler



Drive sprocket



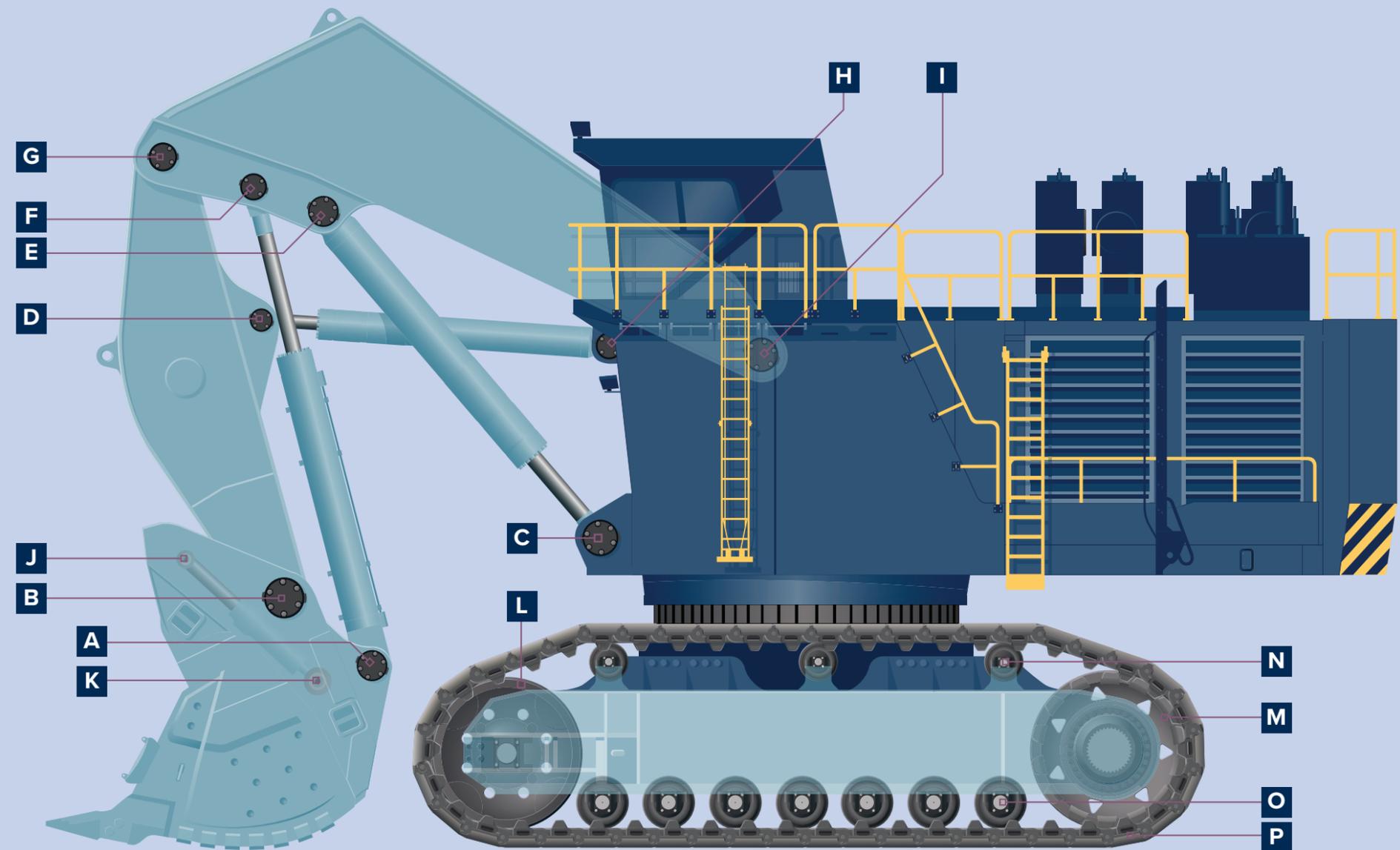
Upper roller



Lower roller



Track shoe



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Komatsu®/Demag® Hydraulic Backhoe

PC2000™, PC3000™, PC4000™, PC5500™, PC8000™

Component identification



Pins and bushings

- | | |
|------------------------------------|--------------------------------------|
| A Bucket and link | G Mainframe and boom cylinder |
| B Bucket and stick | H Stick cylinder and stick |
| C Link and stick | I Stick cylinder and boom |
| D Link and bucket cylinder | J Boom cylinder and boom |
| E Bucket cylinder and stick | K Mainframe and boom |
| F Boom and stick | |

Undercarriage components



Idler

Drive sprocket

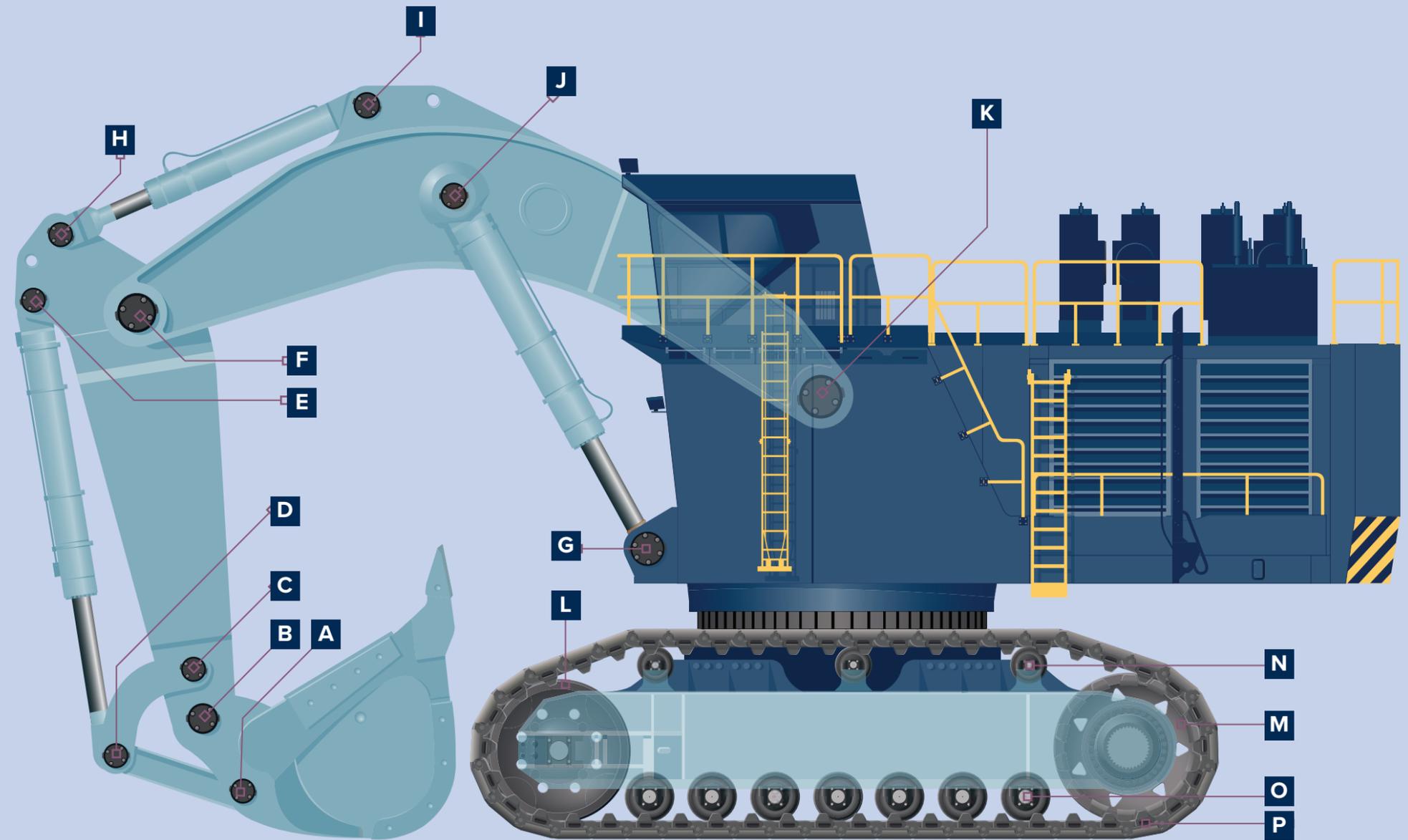


Upper roller

Lower roller

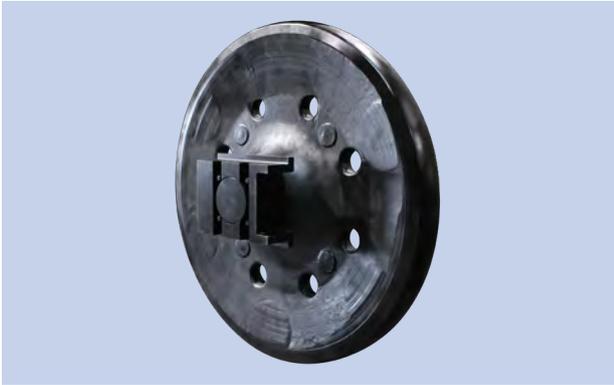


Track shoe



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Premium components



Idler

Your need an idler that will hold up longer. That's why we do induction hardening on our idlers to give them additional strength. Each of our idlers includes our premium bronze bushings and mechanical face seals to give you the quality you deserve.



Drive sprocket

We have re-engineered our drive sprocket to handle more stress and last longer than the original sprocket in your excavator. Our drive sprocket is made with high quality steel and includes a high-grade alloy forging at the hub to make it stronger. We put each sprocket through an induction hardening process to give it wear resistance at the working surface. When your sprocket maintains its shape better, it in turn prevents misalignment between the track shoe drive lugs and the drive sprocket, which is one of the most common causes of premature wear. Overpitched drive socket option is available for longer track lifespan.



Excel bronze bushings... Simply the best!

A bushing may seem like a simple part, but we have earned our reputation for superior bronze bushings because of our innovative manufacturing process and dedication to providing the highest quality components. Our Quality Assurance Department scrutinizes every dimension with exacting tolerances to be sure your bushing is perfect in every way, giving your operation an unbelievable value. Our bushings are less expensive than the OEM, and the highest quality in the business.

Invest in parts you can rely on!

We work with our customers to find the right components for your hydraulic excavators and shovels. Our spare parts are made from the most durable materials and are specifically designed to improve performance.

We offer spare parts for a wide range of Komatsu/ Demag Hydraulic Excavator models.

For inquiries email: excelparts@flsmidth.com



Track shoes

The track shoes are a vital part of your excavator or shovel because they must be strong enough to support its massive weight. Instead of accepting the conventional equipment manufacturer design as good enough, we re-designed the shoe to be stronger, provide better weight distribution and improve material flow. When your track shoes can better support your equipment, you can go further between maintenance shutdowns.

We offer our tracks in high quality alloy steel and manganese steel, and stand ready to help you select the right material for your application.



Lower & upper rollers

Our rollers are forged as a single piece for rock solid performance. By forging the roller to near-net shape, we take advantage of the maximum strength that a forging offers. Then we put the roller through an induction hardening process at the working surface to defend against abrasive wear. It is little wonder that our rollers outlast the competition.

Our rollers also feature the premium bronze bushings that EXCEL is known for along with mechanical face seals.



Re-engineered parts

Original equipment manufacturers often leave room for improvement when it comes to part performance and site-specific considerations on the machines they design. EXCEL™ replacement parts are designed to get you better performance, longer wear life, improved safety, higher quality, complete compatibility and more durability. The only things you will see less of are maintenance and expense. We have been developing and manufacturing replacement components for more than 80 years, and we have produced a wide line of parts that surpass what you can expect from the equipment manufacturer.

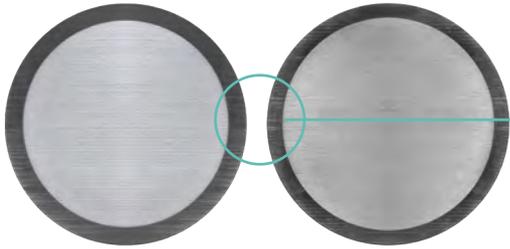


"Our customers need replacement parts that operate in harsh environments. For this reason, we demand metallurgically sound castings produced through the careful control of chemistry and processing parameters for our replacement parts. Our promise is to provide our customers with the highest quality components."

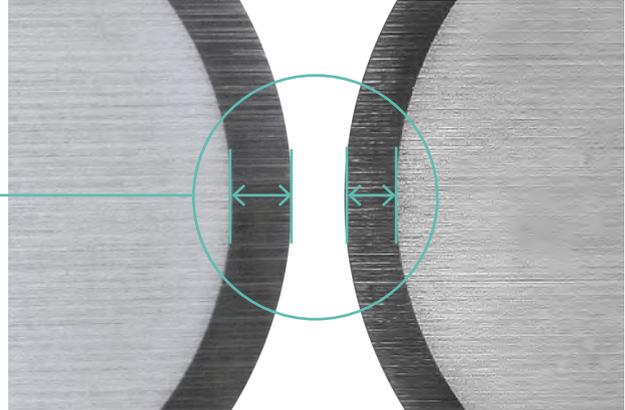
MIKE BERGERHOUSE
Senior Metallurgical Engineer
FLSmidth Inc. - Pekin Operations

Induction hardened pins

- Provides outstanding service life
- Greater penetration than the competition



Deeper hardening. 1/2" to 5/8" (12.7-15.88mm)

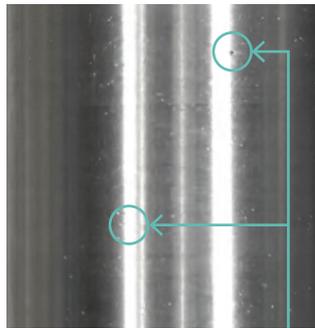


EXCEL hardening

Conventional depth



EXCEL finish



Unacceptable finish

Our surface finish exceeds industry standards

- More passes applied than the competition
- Fine surface finish provides extended life
- Ensures full-depth overlay application with mating contact surfaces
- 100% Inspected

Porosity

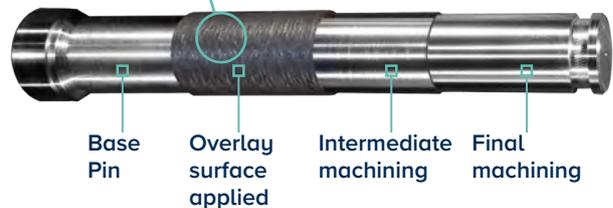
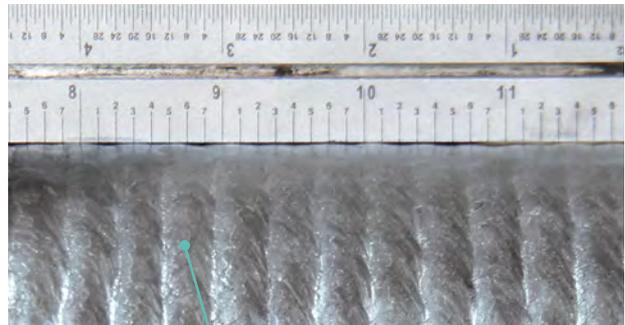
EXCEL proprietary overlay pins

Setting new standards throughout the mining industry

Our pins are manufactured using an automated process to precisely control the depth of penetration of proprietary overlay material to the base metal. This technique allows for the application of the optimal amount of overlay material without further dilution of the base metal which is commonly found in other overlay pins on the market.

Multi-pass overlay penetration is the key

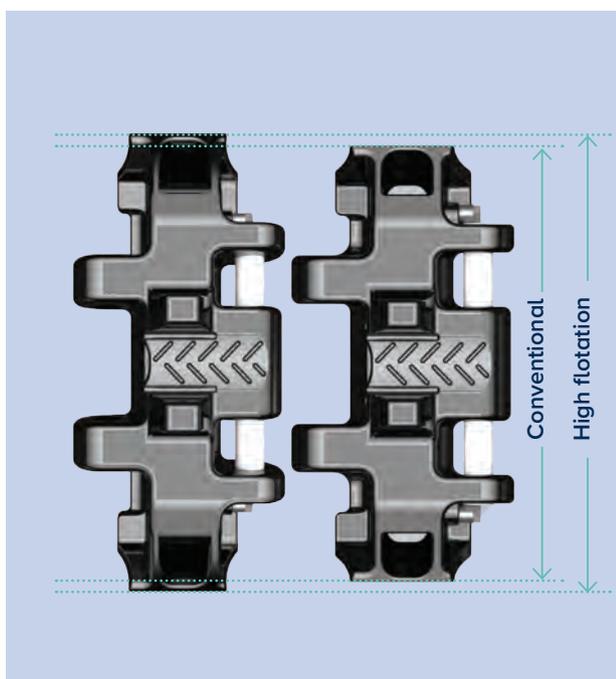
- Soft core retains toughness, adds versatility
- EXCEL pins stand up to extreme applications
- Proprietary overlay material with hardness ranged at 60+ hrc
- Surface finish exceeds industry standards



Working with you to optimise performance

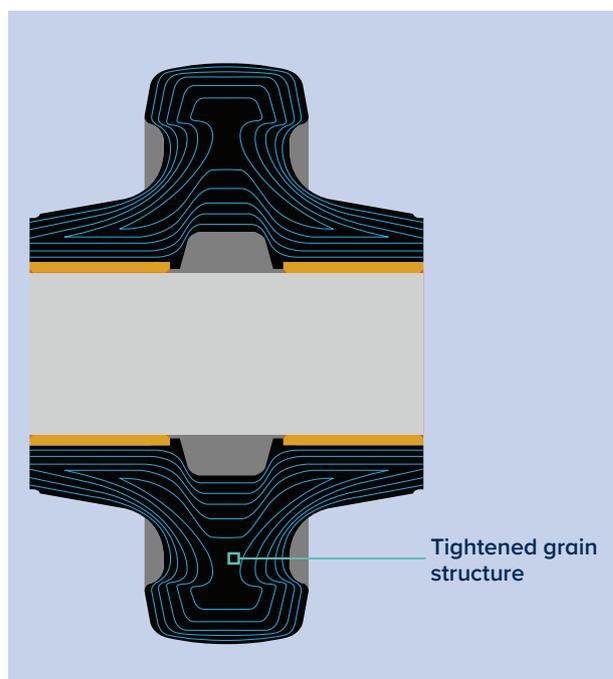
Our engineering and technical experts work directly with customers to solve problems in innovative ways. We partner with operations around the world to develop customised solutions for lasting performance in critical equipment. We get our hands dirty and spend the time needed to fully understand the issues you are facing.

Once we have first-hand knowledge of the situation, our design engineering team goes to work to bring new thinking to the table and offer application-specific solutions designed for your operation.



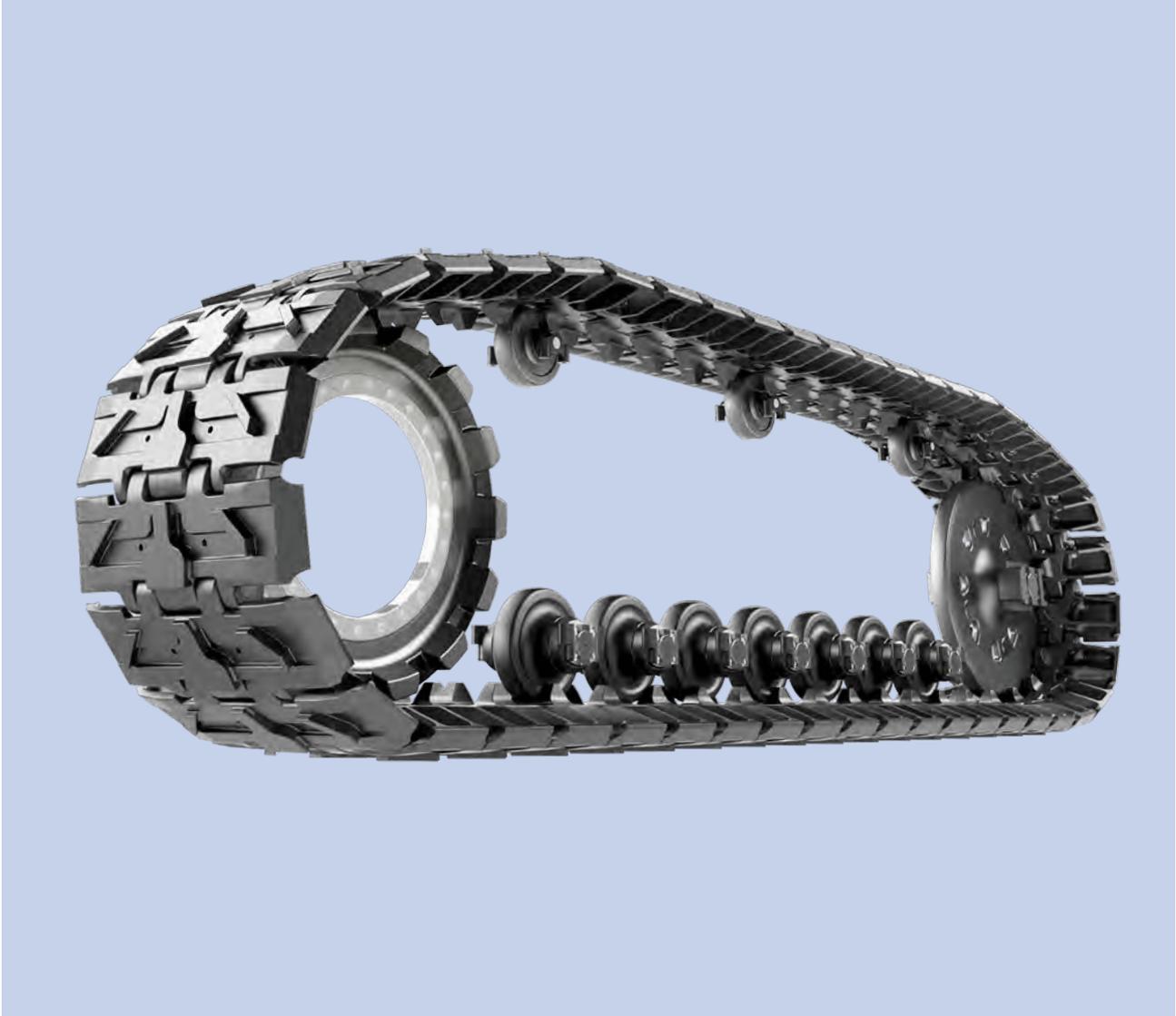
High flotation track shoes for PC5500™

- Improved overall shovel operating weight distribution



Forged one-piece rollers

The forging process results in a dense grain structure that dramatically improves strength and roller longevity.



Undercarriage system

Since EXCEL components are compatible with OEM components, you can benefit from using our parts alongside the OEM equipment. However, for maximum performance and the longest wear life possible, we also provide complete undercarriage system replacements. Our undercarriage system is ready to install without any modifications to the frame.

- Custom retention hardware to retain the pin head
- Re-engineered internal cavity with thicker cross sections to minimise wear and back-bending
- Innovative forged one-piece rollers
- Manganese track shoes available for durability in hard rock applications
- Fully supported roll path that lasts longer than the OEM components

We provide top-quality service and spare parts to keep your equipment moving

Don't accept anything less than the high quality that we provide.

Quality redefined

We know that your success depends on our quality control so we dedicate more time and people to our inspections than any of our competitors. From our strict metallurgical standards and precision machining processes to our exacting inspections, our quality assurance protocols align our processes to produce quality and dependable results. We are ISO 9001 certified, and our program is managed here along with our traceability and record retention. Our procedures allow us to trace any part that we produce, even years later. For each part, we can confirm any possible production details that are needed.

Our promise to our customers

Without satisfied customers, we cease to exist. This very basic principle is the reason we gear everything we do toward delivering a recognisably higher level of service and quality to you – our customer. This is our passion.

It starts with our employees

In order to consistently deliver great products, superior service and exceptional support, we must establish and maintain a culture that inspires passion for these outcomes. Our employees understand that our goal is to exceed our customers' expectations and prove how much we truly care about their business.

Service that makes a difference

Our parts are backed by a talented and accessible team of design engineers and technical service engineers, who have metallurgical expertise and are ready to offer support when you need it. Yes, we use state-of-the-art, 3D-based design technology. But we also take advantage of the experience of former miners and quarry engineers who are on our staff and feedback from customers like you to make sure that what we are designing is relevant in the real world. Whether you need help finding a part for your application, have a custom request, need a metallurgical analysis or need any other technical assistance, we are here to help.





"Our goal is to give our customers the greatest possible usage out of their equipment with high quality replacement components. Many customers see replacement parts as big hunks of steel and assume that they will function under abuse and any circumstance. We see our parts as precisely honed instruments that can be optimized for better performance and longevity."

BRADEN PRICE
Design Engineer, Product Design &
Enhancement
FLSmidth Inc. - Pekin Operations

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