

# BEYOND OEM: HOW INTERSTATE-MCBEE REDEFINES AFTERMARKET ENGINE PART RELIABILITY

In the competitive aftermarket diesel engine parts industry, Interstate-McBee has distinguished itself through an unwavering commitment to quality and engineering excellence. This February, the company successfully completed its ISO 9001:2015 with design certification—marking over two decades of maintaining this prestigious standard. For mining and industrial operations across Sub-Saharan Africa, where equipment reliability directly impacts productivity and profitability, Interstate-McBee's approach offers valuable insights into sustainable quality management. But how?

## Quality Assurance

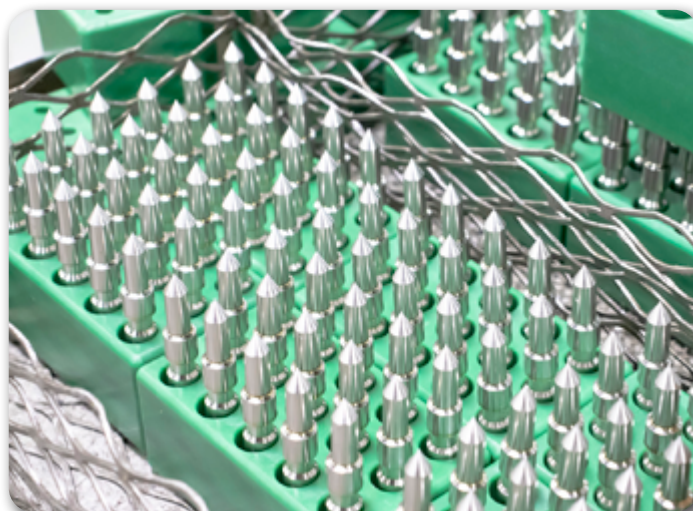
At Interstate-McBee, quality is a commitment. Or as we call it—Quality Assurance. Many of our high-quality replacement parts are manufactured in our U.S.-based facilities, fine-tuned by the work of our dedicated engineers. Our Quality Assurance (QA) ethos ensures excellence at every stage of production.

Our proactive approach means quality is integrated from inception to final production. Working closely with manufacturing and operations, the QA department vows that requirements are met the first time through stringent validation, precision design and ongoing process monitoring. More specifically, our tight quality controls, industry leading warranty and a staff of engineers is our commitment to producing the highest quality product to the customer (time and time again).

## Engineering Excellence: Driving Quality and Affordability

Interstate-McBee's ability to deliver high-quality replacement engine parts at competitive prices is directly tied to our Engineering Department.

With a team of 20 degreed engineers amassing over 100 years of combined experience—some certified in Lean Six Sigma—our engineering expertise is unparalleled.



To ensure a comprehensive product lifecycle, we operate across five specialized departments:

- Reverse Engineering
- Design Engineering
- Manufacturing Engineering
- Industrial Engineering
- Customer Engineering

Each department plays a critical role in upholding quality and efficiency.

## Innovation in Reverse and Design Engineering

The early stages of product development are driven by our Reverse and Design Engineering teams. Utilizing advanced software, statistical best practices and deep industry expertise, we develop specifications that meet or exceed OEM quality, emissions, durability and performance standards.

Our engineers employ cutting-edge analysis tools, including 2D and 3D modeling, simulation and Computational Fluid Dynamics (CFD) to create high-precision components.

## Manufacturing and Industrial Engineering: Maximizing Efficiency

While Manufacturing Engineers focus on refining production processes, our Industrial Engineering team analyzes efficiency and cost-effectiveness. Their goal is to eliminate non-value-added time while reducing value-added time without compromising quality.

By enhancing manufacturing processes, we ensure that customers receive the highest-quality components at the best possible price.

## Customer Engineering: Tailored Solutions for Industry Needs

Beyond internal processes, we place our customers at the center of our operations. Our Customer Engineering team works directly with client to develop tailored solutions for emissions performance and custom designs.

With expertise spanning Tier 0 through Tier 3 certified engines, our engineers collaborate on specialized projects, ensuring compliance and peak performance in various applications.

## Expanding for the Future

Commitment to quality requires not only skilled personnel and cutting-edge technology but also adequate infrastructure. Interstate-McBee re-

affirmed this commitment in 2023 with the opening of a new 200,000-square-foot corporate headquarters. This expansion enhanced assembly and gasket manufacturing capabilities while providing additional space for quality assurance operations.

## Why It Matters

Aftermarket manufacturers like Interstate-McBee face unique challenges compared to OEMs, including brand recognition and perceived quality differences. To remain competitive, we continuously invest in high standards, cost-effective manufacturing and industry-leading warranties.

By maintaining rigorous engineering and quality assurance processes, Interstate-McBee ensures that customers receive durable, high-performance and reliable engine components—reinforcing our reputation as an industry leader in aftermarket solutions.



## Replacement Parts for Caterpillar® Mining Applications

Our replacement parts undergo extensive engineering to meet or exceed OEM standards, ensuring your engines run longer, with less downtime and fewer disruptions.

### Mining Applications Include:

- C15
- C18
- C27
- C32
- 3500 Series and more



[interstate-mcbee.com/mining-applications](https://interstate-mcbee.com/mining-applications)

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