

# REMANUFACTURED ENGINES AND ENGINE COMPONENTS

### LIKE NEW EFFICIENCY FOR A FRACTION OF THE PRICE

Your engine is the heart of your equipment. Keep it running strong — and reduce your costs and downtime — with Cat\* Reman repair options. They're expertly salvaged, carefully validated and engineered with the latest design elements and upgrades. The result: like new performance at a fraction of the cost.

Choose from 8,000+ Cat Reman replacement parts and components, available off the shelf at more than 2,300 authorized Cat locations around the globe. That includes complete engines, long and short blocks and more than two dozen different engine components.

Like all Cat Reman products, our engines and engine components come with a Caterpillar Limited Warranty¹. It covers Caterpillar defects in material and/or workmanship as well as resultant damage¹ to provide long-term protection and confidence as you work.

### IT'S MORE THAN A REBUILD. IT'S CAT REMAN.

### **EXPERIENCE LIKE NEW PERFORMANCE**

Standard repairs and rebuilds have their place. But when you need an affordable, wholesale replacement, Cat Reman products offer an alternative. We use state-of-the-art salvage techniques, strict reuse guidelines, advanced manufacturing systems and stringent inspections to return used engines and components to their original performance specifications.



# REVIVE YOUR EQUIPMENT, REPLENISH THE SUPPLY

### VALUABLE PRODUCTS, SUSTAINABLE BENEFITS<sup>2</sup>,

At Caterpillar, we're dedicated to protecting not just your equipment but also the valuable resources that make its production possible. We contribute to the circular economy through our remanufactured offerings.

A steady flow of used, viable cores moves from customers like you to authorized Cat dealers to our remanufacturing facilities — where they exit as like new Cat Reman products. Compared to manufacturing new components, the Cat Reman process uses 65-87% less process energy, 80-90% less new material and 65-87% less greenhouse gas (CO2) process emissions<sup>2</sup>.



PRODUCT LIFECYCLE

PRODUCT LIFECYCLE

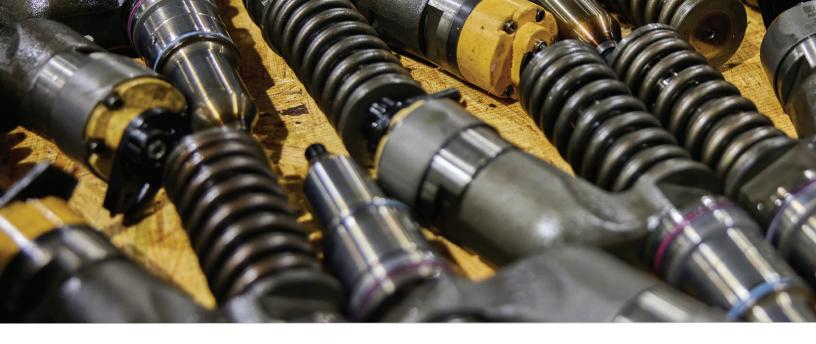
PRODUCT LIFECYCLE

REMANUFACTURING PROCESS

REMANUFACTURING PROCESS

\*It is recommended to replace before failure.

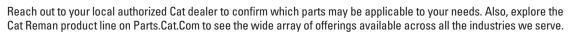
Replacements after failure may result in partial credit.



### COMPREHENSIVE COVERAGE

#### FROM INDIVIDUAL COMPONENTS TO COMPLETE ENGINES

When your engine isn't working, neither are you. Get back in operation fast with Cat Reman. We stock everything from simple components to engine overhaul kits to complete engines. Every Cat Reman part at your dealer is ready to install, so you can reduce downtime and maintain productivity.





-(•)





### **COMPLETE ENGINES**

Cat Reman engines are dynamometer tested and tuned for like new performance and fuel efficiency. Fully assembled and ready to run, they're a cost-effective replacement solution that helps increase your uptime.



### LONG BLOCKS

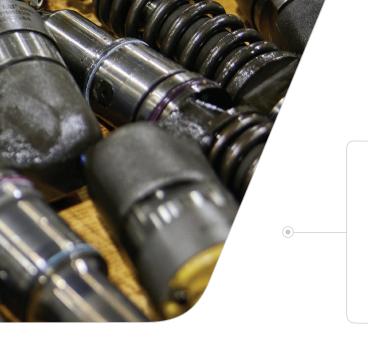
Cat Reman long blocks include short block components plus a cylinder head, camshaft and timing gears\*. They're fully assembled and ready to be built into your engine — reducing downtime and labor costs with more Cat Reman factory-built content.



### SHORT BLOCKS

Cat Reman short blocks are fully assembled with a cylinder block, crankshaft, pistons and connecting rods. They're a good choice when you have crankshaft or cylinder pack issues, but your cylinder head and geartrain are in good, reusable condition.

\*Depending on model, Cat Reman long blocks may also include an oil cooler, oil pump, water pump and other components.





OUR CUSTOMERS USE OUR PRODUCT TO MAKE MONEY AND RUN THEIR BUSINESS. THEY NEED UPTIME, AND THEY NEED RELIABILITY AND DURABILITY. WHEN THEY COME TO US FOR A CAT REMAN PRODUCT, THEY CAN GET IT AT A COMPONENT LEVEL TO DO A SIMPLE REPAIR, OR THEY CAN SAVE LABOR COST BY SWAPPING OUT AN ENTIRE ENGINE.

JEFF GUTZWILLER, CAT REMAN PRODUCT MANAGER, ENGINES & ENGINE COMPONENTS



### **ENGINE COMPONENTS**

- + AC compressors
- + Air compressors
- + Air dryers
- + Air starters
- + Camshafts
- + Clean Emissions Modules (CEMs)
- + Crankshafts
- + Cylinder heads
- + Cylinder packs
- Dampers
- + Diesel particulate filters
- + Electronic controls
- + Electronic Control Units (ECUs)

- + Engine overhaul kits
- + Exhaust gas bypass valves
- + Fan clutches
- + Fuel nozzles & injectors
- + Fuel pumps & governors
- + Oil coolers
- Oil pumps
- + Pre-lube pumps
- + Rocker arms/lifters
- + Turbochargers/cartridges
- + Starters/alternators
- + Water pumps
- + 3600 pre-chambers

# WHAT TO EXPECT FROM CAT REMAN ENGINES AND ENGINE COMPONENTS

### QUALITY, DURABILITY, LONG LIFE.

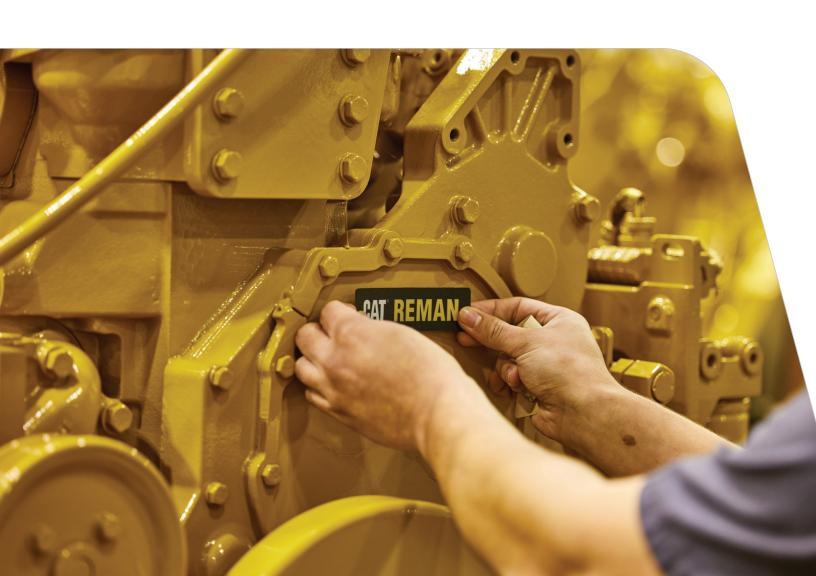
You can count on Cat Reman engines and engine components to deliver high performance on the toughest jobs and in the most extreme conditions. That's because our cutting-edge quality, salvage and remanufacturing techniques ensure every product meets original factory performance specifications.

#### All engine components are:

- + Disassembled, cleaned and inspected for damage
- + Salvaged using advanced techniques
- + Updated to include the latest engineering changes
- + Put through multiple quality checks, including an extensive end-of-the-line test

### For complete engines, long blocks and short blocks, we also:

- + Replace all piston rings, rubber parts, springs, seals, gaskets and 0-rings with 100% new components
- + Regrind and polish crankshaft and journal surfaces
- + Replace cylinder liners or re-hone cylinder bores to exact dimensions
- + Reassemble the final product to meet original performance specifications and like new quality



# **HOW YOUR CORE**REDUCES YOUR COSTS

### **EXCHANGE A VIABLE CORE FOR A CAT REMAN COMPONENT**

Our remanufactured products program runs on an exchange basis. When your engine or engine component reaches the end of its life, and you purchase a Cat Reman replacement, you can return your core to your Cat dealer in exchange for core credit.

Your dealer inspects your used/end-of-life core to determine its viability. That determines the amount of your core credit. In most cases, you receive full or partial credit<sup>3</sup> for cores that:

- + Are fully assembled and complete
- + Are not visibly cracked, broken or welded
- 🛨 Display no non-operational damage, mishandling, excessive rust, corrosion or pitting
- + Have an acceptable Cat part number

Dealers and customers may strip and inspect a core if required for proper failure analysis. To receive credit, it is essential for the component to be reassembled and demonstrate that it still meets the Core Acceptance Criteria with no damage caused by the strip down.

### **KEEPING** ENGINES AND ENGINE COMPONENTS **CURRENT**

The Cat Reman team works closely with the design and quality teams of new Cat products. Using the same specifications, the Cat Reman team regularly incorporates engineering updates into the Cat Reman product line.

Each new product introduction means customers have another way to lower owning and operating costs.



WITH A CAT REMAN PRODUCT, YOU GET A PRICE POINT THAT HELPS **OPTIMIZE YOUR TOTAL COST OF OWNERSHIP** OVER THE LIFE OF THAT PRODUCT. THE REASON WE CAN OFFER **A LOWER PRICE POINT** IS BECAUSE WE'RE GETTING THAT CORE BACK.

JEFF GUTZWILLER, CAT REMAN PRODUCT MANAGER, ENGINES & ENGINE COMPONENTS

### **REMANUFACTURED TO LAST.**BACKED BY A CATERPILLAR LIMITED WARRANTY1.

ALL CAT REMAN ENGINE COMPONENTS ARE PROTECTED UNDER OUR SAME-AS-NEW, 12-MONTH CATERPILLAR LIMITED WARRANTY<sup>1</sup>. OUR COMPLETE CAT REMAN ENGINES ARE BACKED BY A CATERPILLAR LIMITED WARRANTY1. EVERY ENGINE AND ENGINE COMPONENT WARRANTY¹ COVERS CATERPILLAR DEFECTS IN MATERIAL AND/OR WORKMANSHIP AND RESULTANT DAMAGE1.

Reach out to your dealer to learn more about the warranty, core exchange and other Cat Reman details. With a variety of remanufactured engines and engine components, we can help you find the right solution for your application.

### Explore additional information, resources and repair options at www.cat.com/reman.

<sup>1</sup>Warranty can vary by model and application; limitations may apply. For complete details about the applicable Caterpillar Limited Warranty, contact an authorized Cat dealer.

\*Represents U.S. environmental impacts comparing "gate-to-gate" remanufacturing and manufacturing processes for engines and components. Based on 2018 external study of Cat engines, alternators and turbochargers. Does not include impacts elsewhere in our value chain.

<sup>3</sup>Core Acceptance Criteria (CAC) vary by component and are subject to change. Partial core refunds are available for some Cat Reman components. See your Cat dealer for specific information.



### PEDP8027-05 | This content is advertising

© 2023 Caterpillar. All Rights Reserved. CAT, CATERPILLAR, LET'S DO THE WORK, © 2023 Catterplilar. All nights neserived. Cat, CATENTILLAN, LET 3 DO THE World, their respective logos, "Caterpillar Corporate Yellow", the "Power Edge" and Cat "Modern Hex" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

