



# REMANUFACTURED PRODUCTS

Cat® Reman Products for Engines



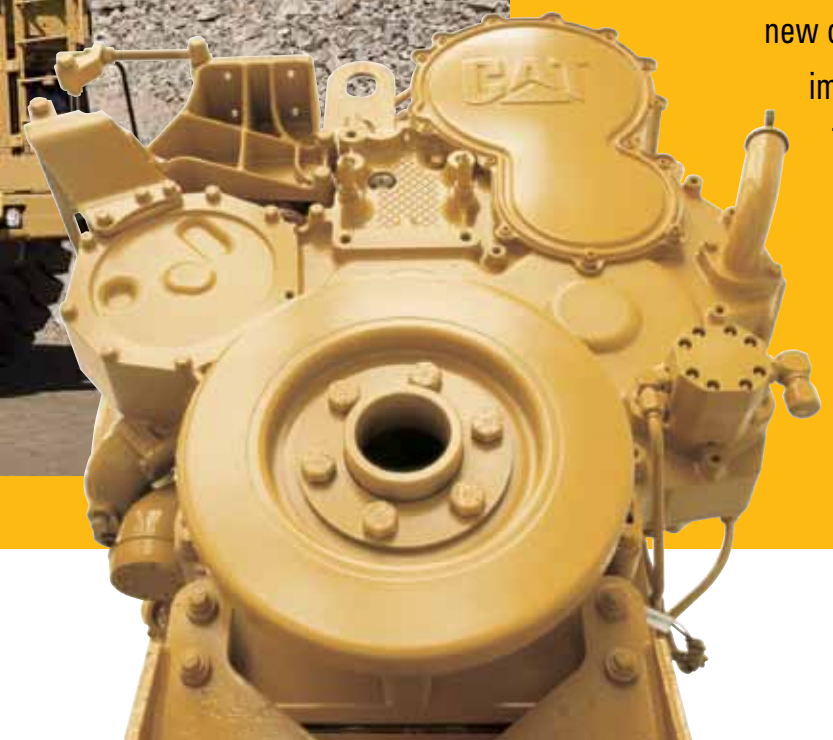


**AS GOOD AS NEW  
AS STRONG AS EVER**

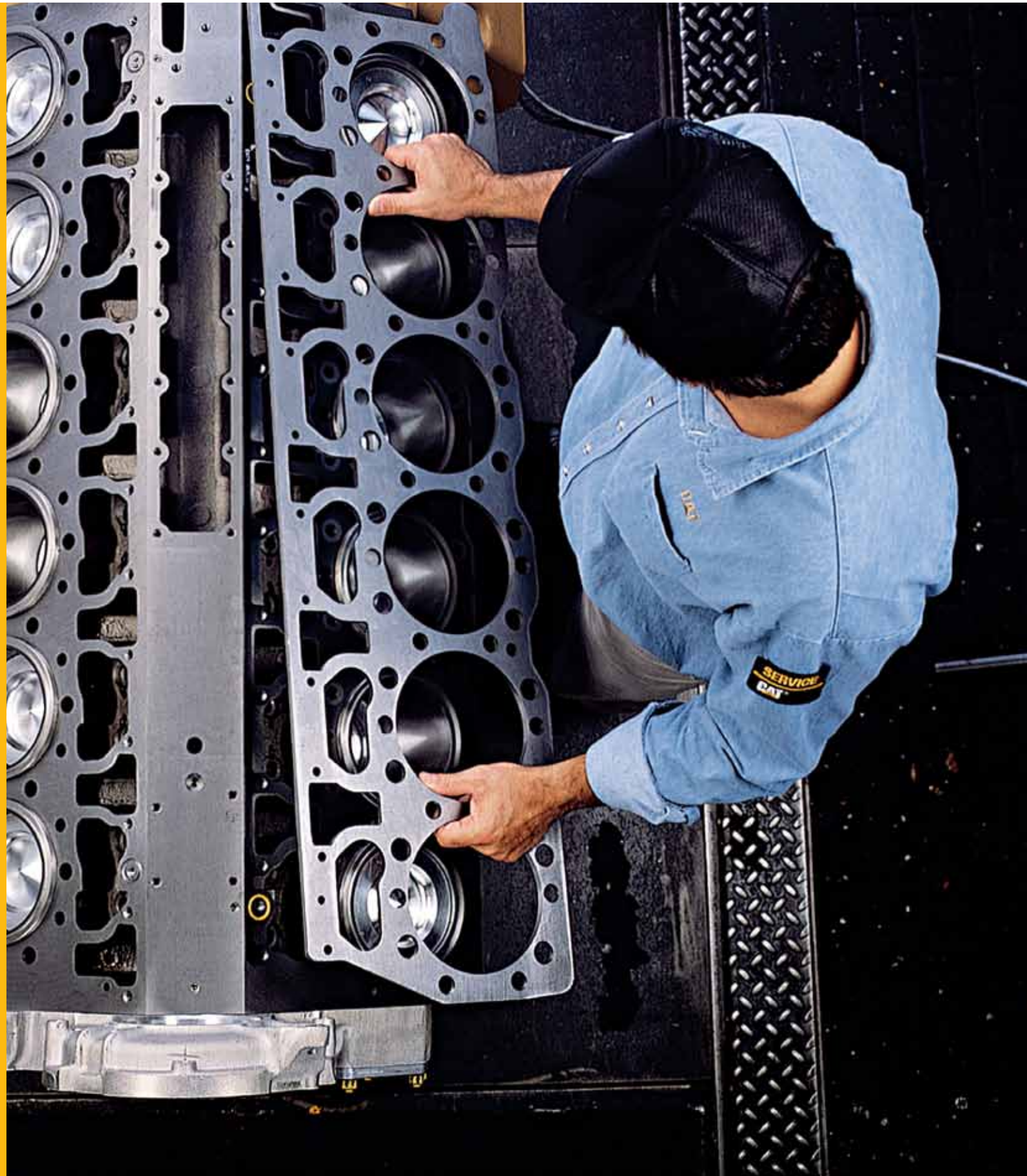


### **Maximum Productivity and Lower Costs**

Cat® Engines work on the toughest jobs and in the most extreme conditions. We offer extensive Reman options – both Reman Engines and engine components – that provide same-as-new performance and reliability at fraction-of-new costs – while reducing the impact on the environment. The results are maximum engine productivity and lower life cycle costs.



**GOOD FOR  
CUSTOMERS**



## COMPREHENSIVE REMAN COVERAGE

### Giving You Options

When your engine requires service, you need options that get you back in operation quickly, affordably, and reliably. Our extensive Reman coverage for engines provides reliable, lower-cost solutions whether you require simple components repair or more complicated engine replacement. We stock Cat Reman Engines, engine overhaul kits and engine components so we can get you back to work quickly.



**Reman Engines and Engine Components**  
We stock the broadest line of remanufactured parts and components in the industry. Our inventories are further supported by the Caterpillar worldwide inventory and distribution system. Engines and engine components are ready to install, so you can minimize downtime and maintain productivity.

Contact your Cat Dealer to obtain a complete listing of all Reman Engines and components available for your Cat engine model. They will be happy to answer all your questions regarding Reman products and availability.

# FACTORY REMANUFACTURING



## Good for Business

Remanufacturing is more than rebuilding. It is returning engines and components to their original performance specifications through the use of state-of-the-art salvage techniques, strict reuse guidelines, advanced manufacturing systems, and unequaled quality control. Restoring original performance is possible since new Cat Engines and engine components are built to be remanufactured for a second life. This attention to detail ensures the Cat Reman Engines and engine components provide same-as-new quality and reliability.

6



## **Generous core acceptance reduces cost, reduces waste**

*Because we are in the business of returning end-of-life components to same-as-new condition, we reduce waste and minimize the need for raw material to produce new parts. Through remanufacturing, we make one of the greatest contributions to sustainable development - keeping nonrenewable resources in circulation for multiple lifetimes.*

## GOOD FOR THE ENVIRONMENT



7

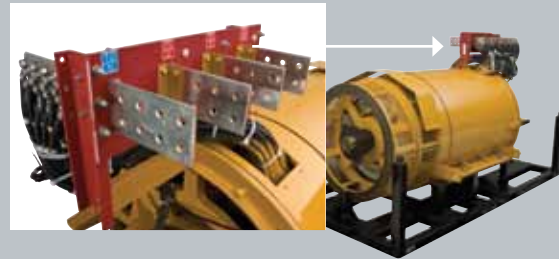
# REMANUFACTURED ENGINES AND ENGINE COMPONENTS



**ENGINES** Cat Reman Engines are remanufactured using only Cat parts, many of them new. Engines are upgraded to include critical design improvements. Plus, each engine is dynamometer tested for operational and performance indicators to ensure Cat Reman Engines meet the same performance specifications as new Cat Engines. All blocks are tested electronically to ensure consistent quality and long life.

## Generators

Reman Generators provide an off-the-shelf solution which helps customers avoid the lengthy processing time required by a generator rewind shop. Reman Generators are remanufactured in a factory environment with Caterpillar controlled processes and are tested with the same rigor as a new Cat Generator. Reman Generators are shipped without a "doghouse," providing more flexibility for your application.



## Short and Long Blocks

Cat Reman Long and Short Blocks are disassembled, thoroughly flushed to meet rigid cleanliness standards, and 100% inspected for cracks, erosion, or other damage.

Block and cylinder head faces are resurfaced to factory specifications. Crankshafts are reground, polished, and checked for lift and endplay. All bearings, seals, gaskets, and piston rings are replaced with new Cat parts. Blocks are tested electronically to ensure consistent quality and long life.

## Cylinder Heads

Reman Cylinder Heads are 100% magnafluxed to detect cracks, and inspected for other damage, and are updated to include engineering changes. The bottom deck is resurfaced to ensure a tight seal and to help prevent combustion gas and coolant leaks. All critical wear and sealing components are replaced with new Cat parts. Cat Reman Cylinder Heads are pressure tested for leaks before they leave the factory.

## Air Compressors

Crankshaft and journal surfaces are reground and polished and cylinder bores rehone to exact dimensions. Each unit has new piston rings, rubber parts, springs, seals, gaskets, and washers to help deliver same-as-new performance.



## Alternators/Starters

To ensure same-as-new performance, all alternator gaskets and seals, and starter O-rings, seals, and boots are replaced.



## Crankshafts

Crankshafts are 100% magnafluxed to detect cracks. Crankshaft journals are machined to the same surface finish, roundness, and location tolerance of new crankshafts to extend service life.



## Cylinder Packs

Cat Reman Cylinder Packs ensure your engine is overhauled using performance-matched Caterpillar parts. Only Caterpillar preassembles the connecting rod, liner, and piston as a unit, cutting overhaul time by as much as 25%.



## ECUs

Cat Reman has developed its own line of remanufactured ECUs. This ensures electronic control units are thoroughly diagnosed and remanufactured, and critical engineering updates are completed. When the remanufacturing process is complete, the units pass through rigorous durability test requirements.



## Flywheels

Cat Reman Flywheels are balanced to factory specifications with factory surface finish, which means a smoother engine operation and better clutch break-in. Cat Reman also inspects all ring gears and replaces when necessary.



## Fuel Injection Pumps and Governor Groups

All gasket seals and worn parts are replaced with new. Each unit is computer-tested for 20 critical quality points to ensure maximum performance and fuel economy.



## Oil Coolers

Unlike other rebuilders who clean and reuse bundles, Cat Reman Oil Coolers use only new tube bundles and end sheets, which increases reliability and performance levels. Oil coolers are 100% tested, same as new.



## Turbochargers

Center housings are tested for seal integrity. All thrust and antifriction bearings are replaced to ensure long life and performance. All rotating assemblies are dynamically balanced using the same equipment as new units.



## Unit Injectors and Fuel Nozzles

Every component is completely disassembled, cleaned, and extensively inspected to ensure same-as-new quality and reliability. Advanced salvage techniques are applied to ensure components meet specifications. All seals and O-rings are replaced. Fully assembled remanufactured injectors are tested on the same equipment and to the same specs as new injectors.



## Water Pumps and Oil Pumps

Cat Reman Water and Oil Pumps are updated to meet the latest design standards and feature 100% replacement of bearings and seals. Reman water and oil pumps are 100% tested, same as new.





## FRACTION-OF-NEW PRICE

Reman options are one more way we support your equipment and help you lower owning and operating costs. And by reusing much of the original component, remanufacturing conserves most of the energy consumed in the original manufacturing process, further helping to lower owning and operating costs and contributing to the environment at the same time. Cat Reman engine components are priced at a fraction of new with the return of your used core through our easy core acceptance program.



### Simple core acceptance reduces costs

*Our simple core acceptance criteria allow a quick determination of core credit. We visually inspect the core on the spot, providing an immediate decision on core condition and credit, so you don't have to wait for – or guess about – repair costs. Our two-level pricing system ensures that engines with broken, cracked, or welded blocks can earn a partial refund. Plus, knowing the exchange price in advance means you'll avoid mid-job surprises.*

#### Basic Core Criteria<sup>1</sup>

- Component not visibly cracked, broken or welded
- Fully assembled and complete
- No non-operational damage (mishandling, excessive rust, corrosion, or pitting)
- Acceptable part number – Cat part

<sup>1</sup> Core refund criteria 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.

### Warranties protect your investment<sup>1</sup>

#### Cat Reman Engines

*We have various warranties depending on the sales model and application. Please see your local dealer for specific details.*

#### Cat Reman engine components

*Caterpillar backs Reman engine components with a same-as-new warranty, honored worldwide.*

<sup>1</sup> See your Cat Dealer for full warranty details and any restrictions that may apply.



**YES, YOU CAN HAVE IT ALL.**

**Best-built Cat parts with the  
same warranty as new, when  
and where you need them -  
all at a fraction of the price.**

**CAT REMAN PRODUCTS**

For more information, please visit the Caterpillar  
website at [www.cat.com](http://www.cat.com).

