

CAT[®] REMAN SOLUTIONS FOR WELL SERVICE.



REDUCE. REUSE. RESTART.



REMANUFACTURED FOR MORE HARD WORK.

At Caterpillar, we build equipment to last. We also expect it to take a beating in the field. So, when the time finally comes and critical parts are no longer performing at their peak, Cat[®] Reman is ready to help you revitalize your well service equipment to like-new condition.

From the engines and transmissions at the heart of your operations to important parts like turbos, oil coolers, and cylinder heads, our Cat Reman experts know that every piece of your equipment adds up when performance is on the line. It's why we use state-of-the-art quality, salvage, and remanufacturing techniques so that every Cat Reman part meets original Caterpillar performance specifications.

And in the case that critical engineering updates are made after a part has been released, these updates are incorporated into the remanufactured part so that it meets today's performance standards.

» FRACTION OF THE COST OF
NEW WITH CORE RETURN¹

» **65-87%**

LESS GREENHOUSE GAS PROCESS
EMISSIONS² WHEN COMPARED
TO MANUFACTURE OF NEW

MORE POWER. LESS WASTE.

We have spent decades refining the Cat Reman process to be better for your performance in the field and your bottom line. Cat Reman well service engines, transmissions, and components are a fraction of the cost of new when you return your end-of-life core. Remanufacturing also supports sustainability benefits by reducing end-of-life waste.

1. Cost savings based on core return, core conditions apply
2. 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.

THE RIGHT CAT REMAN PRODUCTS FOR YOUR WELL SERVICES.

OUR WIDE RANGE OF COVERAGE OPTIONS ARE TAILORED
TO SUPPORT YOUR CAT EQUIPMENT.



COMPLETE ENGINES

3512C Tier 2 Well Service Engines

- » Rear ATAAC¹ Dynamic Gas Blend (DGB)
- » Front ATAAC¹ DGB
- » SCAC² DGB
- » SCAC² Diesel
- » *Diesel to DGB Upgrade Available*

1. ATAAC – Air-to-Air Aftercooled
2. SCAC – Separate Circuit Aftercooler

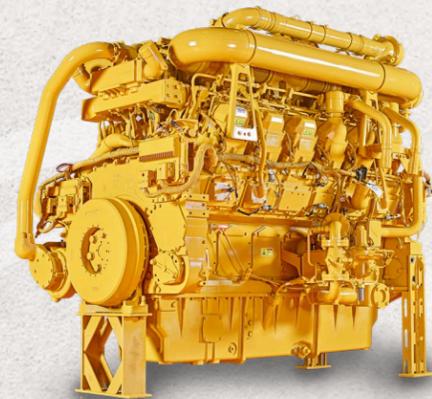
TRANSMISSIONS

TH55 Well Service Transmissions

- » TH55-E70 Arrangement
- » TH55-E90 Arrangement
- » *TH55-E70 to TH55-E90 Upgrade available*

ENGINE COMPONENTS

- » Air and electric starters
- » Camshafts
- » Cat Emissions Modules
- » Crankshafts
- » Cylinder heads
- » Cylinder packs
- » Dampers
- » Electric controls
- » Fuel nozzles & injectors
- » Rocker arms / lifters
- » Short and long blocks
- » Turbochargers (cartridge and full turbo)
- » Water pumps, oil pumps, oil coolers, pre-lube pumps



REMANUFACTURED ENGINE POWER

Cat Reman 3512 engines are designed to reduce downtime through their convenient drop-in capability while delivering like-new performance – helping you operate efficiently for extended periods. In fact, compared to typical overhauls or rebuilds, Cat Reman 3512 engines can save you an average of 50 hours in repair labor¹ right from the start. And our dealer network works with you every step of the way to build the right solution – even giving you the flexibility to return a diesel core for an upgraded Dynamic Gas Blend (DGB).

1. Savings based on repair and labor guidelines for 3512 Petroleum engine.



DROP-IN ENGINE SOLUTION



CORE CREDIT, EVEN FOR DAMAGED BLOCKS²



CATERPILLAR WARRANTED PRODUCT³

2. Additional requirements apply. Contact your authorized Cat dealer for more information.

3. Warranty can vary by model and application; limitations apply. For complete details about the applicable Caterpillar Limited Warranty, contact an authorized Cat dealer.

TRANSFORMED TO BE LIKE-NEW

Every remanufactured component of a **Cat Reman engine** is thoroughly inspected, remanufactured, and tested to Caterpillar specifications before it is put back into circulation. It all happens at our state-of-the-art remanufacturing facilities, where our team does it all.

- » Disassembly, cleaning and inspection of every component to be remanufactured
- » Application of advanced salvage techniques and incorporation of all critical engineering updates
- » Machining of complete block to original Caterpillar quality specifications
- » Installing standard crankshaft and genuine new harnesses, sensors, and aftercoolers
- » Including Cat Reman camshafts, cylinder heads, turbochargers, and Engine Control Modules (ECMs)
- » Assembling of the final engine to like-new product engineering standards
- » Performing dynamometer testing to make sure the product meets original Caterpillar performance specs

REMANUFACTURED FOR RENEWED PERFORMANCE

Top to bottom, inside and out, **Cat Reman transmissions** are remanufactured to deliver like-new performance and durability – all while reducing downtime and expenses. Those capabilities start with our detailed transmission remanufacturing process.

- » Disassembling, cleaning, and inspecting every component to be remanufactured
- » Restoring worn cases, shafts, carrier, and clutch housings with advanced salvage techniques
- » Replacing bearings, seals, friction disks, valves, harnesses, and hardware with genuine new Cat parts
- » Incorporating all critical engineering updates
- » Assembling the final product using product engineering standards
- » Testing to like-new specifications through our standardized end-of-line testing

RESTORE TRANSMISSION PERFORMANCE

Without a capable transmission in place, even the most capable well service engine won't come close to its full power potential. That's why Cat Reman TH55 transmissions offer a simplified solution for maintaining performance in the field. Our drop-in-ready transmissions seamlessly integrate into your powertrain – reducing downtime and delivering like-new performance. And our dealer network works with you every step of the way – working with you to build the right solution. We even give you the flexibility to return a 7-speed core for an upgraded 9-speed transmission, with an applicable upgrade charge.

 **DROP-IN TRANSMISSION SOLUTION**

 **FLEXIBILITY TO UPGRADE**

 **CATERPILLAR WARRANTED PRODUCT¹**

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

CORE RETURNS

At Caterpillar, we work to make sure that no viable core goes to waste. So, when your component reaches the end of its lifecycle and a Cat Reman product is purchased, you can return your core to your dealer for a core deposit refund. The viability of a core and the amount of refund provided is determined by the dealer inspection team.

In most cases, we accept cores¹ that:

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

1. Core Acceptance Criteria (CAC) vary by component and are subject to change. Partial core refunds are available for some Cat Reman components. Contact your authorized Cat dealer for more information.



WHY CHOOSE CAT REMAN?

DESIGNED TO REDUCE DOWNTIME

From engines to transmissions to the critical parts that power your performance, Cat Reman products are built to streamline the installation process with drop-in efficiency that gets you back up and running faster.

WE KNOW YOUR CAT EQUIPMENT BEST

Only Caterpillar can restore Cat products to like-new Caterpillar specifications. Our team of expert engineers use these specifications so that Cat Reman offerings meet like-new performance and quality standards. This means parts you can depend on to perform like-new.

WE STAND BEHIND OUR WORK

Cat Reman products are remanufactured to last. So, we extend their like-new features to include the coverage provided by Caterpillar. Cat Reman parts and engines receive the same-as-new Caterpillar Limited Warranty¹ – protecting against Caterpillar defects in material and/or workmanship.

WHAT CAT REMAN IS

AND WHAT IT IS NOT

 CAT REMAN IS...

 CAT REMAN IS NOT...

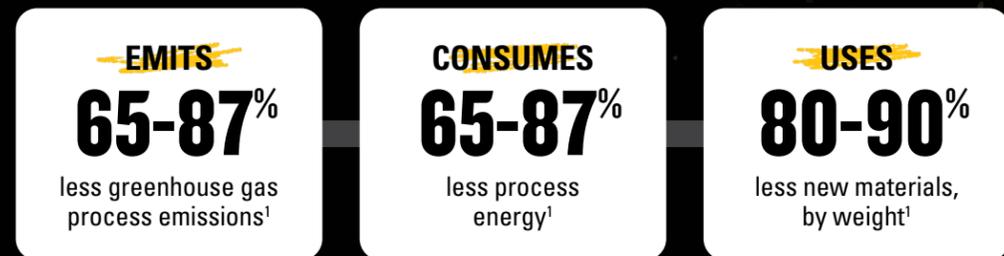
<p> Engineered in a consistent process delivering sustainability benefits, within a manufacturing environment designed to match the OEM performance specifications and manufacture of new products.</p>	<p> A repair — which is often a simple or targeted fix for specific concerns, designed to keep equipment running for the near term. However, Cat Reman solutions can be used as part of the repair process.</p>
<p> Upgraded to include critical engineering updates.</p>	<p> A refurbish/recondition — which generally includes an external physical inspection, an internal visual examination, cleaning of material buildup and then reassembly with basic testing.</p>
<p> Made using components from original equipment which have been remanufactured to like-new quality by Caterpillar.</p>	<p> A rebuild — which may require a longer turnaround time and, when completed by a third party, may use will-fit parts without the benefit of Caterpillar reuse guidelines and salvage specifications. However, Cat Reman solutions can be used as part of the rebuild process.</p>
<p> Restored using proprietary Caterpillar processes with genuine Cat parts.</p>	
<p> Covered by a same-as-new, 12-month Caterpillar Limited Warranty.¹</p>	
<p> A comprehensive remanufacturing process of used parts obtained through core return that gives each part a new identity.</p>	<p> A retrofit — in which new parts are designed to fit into older machine models to address productivity or maintenance issues.</p>

¹ Warranty can vary by model and application; limitations apply. Contact an authorized Cat dealer for complete details about the applicable Caterpillar Limited Warranty.

REVIVE EQUIPMENT. REPLENISH SUPPLY.

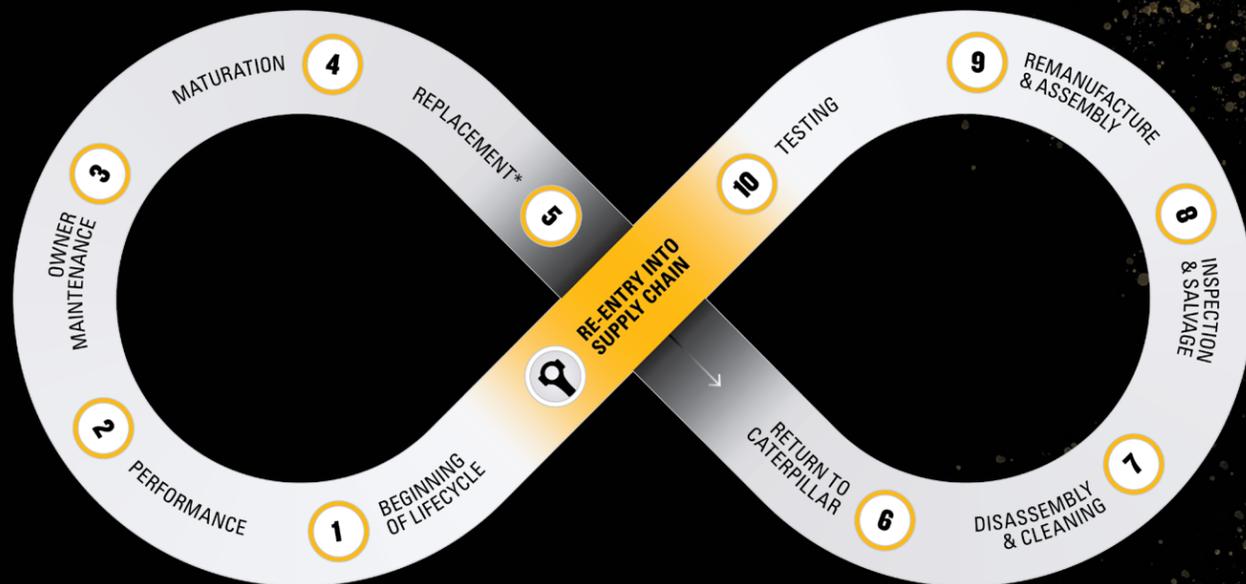
Cat Reman offers a more efficient solution for refreshing your power and production. As part of our circular economy, we take your returned cores and turn viable end-of-life parts into like-new performers – keeping the supply chain stocked and limiting unnecessary waste.

WHEN COMPARED TO THE MANUFACTURE OF NEW COMPONENTS, REMANUFACTURING:



1. 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.

CAT® REMAN PRODUCT LIFECYCLE



* It is recommended to replace before failure. Replacements after failure may result in partial credit.

GLOBAL SUPPORT STANDING BY.

With the support of the Cat dealer network, you're never far from the Cat Reman parts and components you need. That includes 21 Global Caterpillar Parts Distribution centers and more than 2,300 authorized Cat locations – all ready to keep you up and running with drop-in ready solutions when and where you need them.

ORDER PARTS ONLINE

Already know the component you need? Conveniently search the complete Cat Reman product line on Parts.Cat.Com.





READY FOR A CAT REMAN PRODUCT?



**CONTACT YOUR LOCAL CAT[®] DEALER TO
RESTORE LIKE-NEW PERFORMANCE FOR
YOUR WELL SERVICE OPERATIONS AT
[CAT.COM/REMAN.](https://www.cat.com/reman)**