

## **REMANUFACTURED**DRIVETRAIN COMPONENTS

#### **EXPANDING POTENTIAL WITH NEW POSSIBILITIES**

Limit downtime with the cost-effective efficiency and like new performance of Cat® Reman products. Engineered for sustainability benefits for a steady supply of necessary parts, Caterpillar salvages and remanufactures a diverse set of drop-in solutions, including comprehensive drivetrain offerings that keep your equipment going.

Select between **8,000+ varieties** of Cat Reman complete components, overhaul kits and piece parts found across our **2,300+ authorized Cat locations**. With **off-the-shelf parts availability** across our product line at price points of up to 60% off the cost of new — for transmissions, torque converters, final drives and more — you won't be left in the dark.

Coupled with our **12-month Caterpillar Limited Warranty**<sup>1</sup> — which covers caterpillar defects in material and/or workmanship, and resultant damage<sup>1</sup> — you receive protection that helps you confidently push through the work ahead.



### IT'S MORE THAN A REBUILD

#### CAT REMAN DRIVETRAIN PARTS AREN'T REPAIRS OR REBUILDS.

They're **like new components** — such as transmissions, final drives and axles — that have been salvaged through our sustainable and state-of-the-art remanufacturing process.

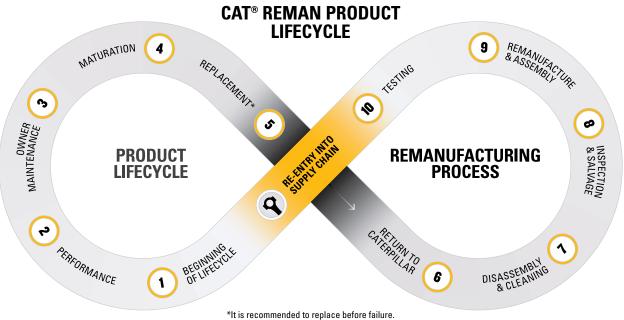


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## **REVIVE YOUR EQUIPMENT.**REPLENISH THE SUPPLY.

#### **SUSTAINABILITY BENEFITS FOR VALUABLE PRODUCTS**

The remanufacture of Cat drivetrain parts deliver multiple sustainability benefits. This is not only true of the Caterpillar supply chain — which remains strong thanks to the regular influx of used parts from customers — but also the environment at large. You might be surprised to learn that the Cat Reman process emits 61% fewer greenhouse gases and uses 85% less energy, material and water than the manufacture of new<sup>2</sup>.



Replacements after failure may result in partial credit.



# WHAT TO EXPECT FROM CAT® REMAN DRIVETRAIN PARTS

Let's look deeper at some of the more common repair options chosen by Cat customers. Cat Reman drivetrain components are engineered to withstand high torque and heavy loads as well as quick direction and gear adjustments.

#### TRANSMISSION OFFERINGS ARE:

- Manufactured to precise specifications for efficient power flow and increased wear resistance.
- Tested for consistency and quality using processes that simulate real world applications for long life and reliable performance.

### **STEERING CLUTCH AND BRAKE GROUPS ARE:**

- + Designed to demonstrate efficient power flow.
- Tested to provide increased wear resistance and longer life.

#### **FINAL DRIVES AND WHEEL GROUPS ARE:**

- Engineered to fit precisely alongside other parts in the drivetrain system.
- + Heat treated for like new component life and drivetrain function.
- + Tested for consistency and quality.

### YOU HAVE ADDITIONAL REPLACEMENT OPTIONS

Replacement options for brake anchors, planetary carriers, reaction hubs, spindle assembles/axle housings, spindle hubs and wheel assemblies are also available.

ALL COMPONENTS ARE INSPECTED BY TRAINED CAT REMAN INSPECTORS SO PARTS THAT MEET ORIGINAL OEM SPECIFICATIONS ARE USED IN THE REMANUFACTURING PROCESS.

CAT REMAN PRODUCT MATRIX						
PRODUCT	SALES MODEL	TRANSMISSIONS	TORQUE CONVERTERS	FINAL DRIVES	BRAKE GROUPS	STRUTS, RODS & GROUPS
	797	•	•	•	•	•
LARGE MINING TRUCK	793	•	•	•	•	•
	789	•	•	•	•	•
	785	•	•	•	•	•
OFF-HIGHWAY TRUCK LARGE WHEEL LOADER	777	•	•	•	•	•
	775	•	•	•	•	•
	773 772	•	•	•	•	•
	770	•	•	•	•	•
	769	•	•	•		•
	994	•	•	•		
	993	•	•	•		
				•		
	992	•	•			
	990	•	•	•		
	988	•	•	•		
	986	•		•		
	982	•				
MEDIUM WHEEL LOADER	980	•		•		
	972	•				
	966	•		•		
COMPACTOR & WHEEL DOZER	854	•	•	•		
	844	•	•	•		
	836, 834	•	•	•		
	825, 826	•		•		
	824	•		•		
	D11	•	•	•	•	
TRACKED TYPE TRACTOR	D10	•	•	•	•	
	D9	•	•	•	•	
	D8	•	•	•	•	
	D7	•		•		
	D6	•			•	
		•		•		
UNDERGROUND MINING ARTICULATED TRUCK	RG1300					
	R1600	•	•	•		
	R2900	•	•	•		
	AD30	•	•			
	AD45	•		•		
	AD50	•		•		
	AD60	•		•		
	745	•		•		
	740	•		•		
	735	•		•		
	730	•		•		
	725	•		•		
MOTOR-GRADER	24	•	•	•		
	16	•		•		
	14	•				
	12	•				
	160	•				
	140	•				
	120	•				
WELL SERVICE TRANSMISSION	TH55-E70	•				
	TH55-E90	•				
WHEEL TRACTOR-	637	•				
SCRAPER	627	•				

### AN INTENSE LEVEL OF CARE

#### **FOR QUALITY CAT REMAN PARTS**

At the Cat Reman Drivetrain Facility in Fargo, North Dakota, Caterpillar processes over 600 unique part numbers. This includes final drives, transmissions, torque converters and individual piece parts like carriers, clutch plates, spindles and struts.

But what goes into the remanufacture of drivetrain products? Let's consider rear wheel spindles.

Once a customer brings a used and/or end-of-life rear wheel spindle to a dealer for a core exchange
— and it passes dealer inspection — the component is sent to a core processing facility for additional inspection. Then, the viable core is forwarded to a Cat Reman plant like the one in Fargo.

Here, it's disassembled down to the nut and bolt. After a disassembly inspection, the approved rear spindle undergoes a cleaning process and a more in-depth inspection to diagnose damaged features, like bearings, splines, retainer holes and loop slots. These imperfections are worn away through machining (which may include horizontal and vertical lathing and milling, radial drilling, multi-axis machining and grinding) as well as metal deposition (in processes such as laser cladding, manual welding and twin wire arc thermal coating).

After these procedures, the Cat Reman team performs various tests, including crack-check analysis to confirm the strength of the casting, before the rear wheel spindle officially becomes a like new drivetrain component.

## WHAT MAKES A DRIVETRAIN CORE **ACCEPTABLE?**

Caterpillar maintains a steady inventory of Cat Reman products thanks in part to the core exchange which occurs between dealers and customers. When a component reaches the end of its lifecycle and a Cat Reman product is purchased, the Cat customer may return their core to their dealer for a core refund. The most common drivetrain parts accepted for core return are final drives, steering clutches, torque converters and transmissions.

The viability of a core and the amount of credit provided to the customer is determined by our Core Acceptance Criteria<sup>3</sup>. In most cases, we accept a core<sup>3</sup> that:

- + Is fully assembled and complete
- + Is not visibly cracked, broken or welded
- + Displays no non-operational damage, like mishandling, excessive rust, corrosion or pitting
- + Has 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.



ONE OF THE **KEY ADVANTAGES** OF GETTING A CAT REMAN DRIVETRAIN COMPONENT IS: YOU ARE GETTING IT FROM THE SAME PEOPLE [WHO] DESIGNED AND MANUFACTURED THAT PRODUCT IN THE FIRST PLACE. YOU CAN BE CONFIDENT THAT THE COMPONENT WILL HAVE CRITICAL ENGINEERING UPDATES, BE TESTED TO **CATERPILLAR STANDARDS** AND MEET ALL OF THE ENGINEERING CRITERIA REQUIRED TO PERFORM SUCCESSFULLY IN THE FIELD.

MARK FREY, CAT REMAN PROGRAM MANAGER,
DRIVETRAIN COMPONENTS

### **KEEPING DRIVETRAIN 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 new offerings into the Cat Reman product line.

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



WE'VE HAD A THREE-YEAR PROJECT ON FIGURING HIGH-PRESSURE SLEEVE SOLUTIONS FOR BEYOND-LIFE DIAMETERS IN THE TRANSMISSION WORLD WHICH IS BECOMING SUCCESSFUL. THE MORE COMPONENTS WE CAN KEEP OUT OF SCRAP, THE BETTER CAT REMAN IS.

JAMES GIBBENS, CAT REMAN MANUFACTURING ENGINEER, SALVAGE SOLUTIONS





ALL CAT REMAN DRIVETRAIN PRODUCTS ARE PROTECTED UNDER OUR **SAME-AS-NEW**, 12-MONTH CATERPILLAR LIMITED WARRANTY<sup>1</sup>, WHICH COVERS CATERPILLAR DEFECTS IN MATERIAL AND/OR WORKMANSHIP, AND RESULTANT DAMAGE<sup>1</sup>.

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

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

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

<sup>2</sup>Represents environmental impacts from remanufacturing process for a Cat Reman engine and components as compared to manufacturing a new, comparable engine and components. Does not include impacts elsewhere in our value chain. Based on a 2006 study done by Caterpillar on the 3412 cylinder head.

<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.

