

Transmissions and Torque Converters



Built to meet your drive train's demands and lower your costs through remanufacturing

Your drive train system endures incredible torque, high-impact loads, and frequent direction and gear changes. To deliver maximum performance and life under these conditions, Caterpillar® transmission components are:

- designed with special features for improved lubrication and load distribution.
- manufactured to precise specifications for efficient power flow and increased wear resistance.
- tested using processes that simulate real-world applications for reliable performance and long life.

Plus, Cat® transmission components can be remanufactured for a second life. Cat Reman Transmissions and Torque Converters offer same-as-new performance and long life at fraction-of-new prices.



Reman Transmissions and Torque Converters reduce downtime and costs

When you need repairs, Cat Reman components get you back to work quickly, reliably, and affordably. Completely remanufactured to factory specifications, Cat Reman Transmissions and Torque Converters offer like-new performance and life.

Strict remanufacturing processes

Cat Reman Transmissions and Torque Converters include the latest engineering updates and design improvements and are 100% tested to factory specifications. All seals, cups, and bearings are replaced, and all parts that cannot be restored to like-new condition are replaced with new parts.

Transmissions

Cat Reman Transmissions undergo a multi-step remanufactured transmission test that:

- includes a run-through of all forward and reverse gears at low idle and high idle.
- tests valve pressure settings, lube flow, and lube pressure.
- eliminates oil leaks.
- helps ensure proper shifting and timing of shifts.

Torque Converters

Cat Reman Torque Converters undergo a strict remanufacturing test that:

- uses lightweight oil to simulate load conditions, ensuring minimal internal leakage.
- verifies inlet and outlet valve pressure.
- checks and sets lock-up valve.

Fast, easy installation

Cat Reman Transmissions and Torque Converters are available off-the-shelf as groups. They come fully assembled and ready for installation at your job site or in our shop, reducing your turnaround time.

Availability of Cat Reman Transmissions and Torque Converters

Elevated Sprocket Tractors	D8–D11
Off-Highway Trucks	768C–793B
Wheel Loaders	980C–994
Motor Graders	16G, 24H
Scrapers	621E–657E
Wheel Tractors	824C–834B

Low-cost repair options

Cat Reman Transmissions and Torque Converters are priced at 20–30% of the cost of new piece parts when you return a Level I Core. When you repair before failure (Level I Core), Reman Transmissions and Torque Converters reduce downtime and costs.

To determine core credit level, we use simple, visual tests that don't require special tools or disassembly. This allows us to provide an immediate decision on core condition and credit, so you don't have to wait for—or guess about—repair costs.



Transmissions and Torque Converters

Quality materials and controlled processes ensure top performance and long life

New Caterpillar Transmissions are designed and manufactured using quality materials and controlled manufacturing processes to ensure they provide top performance and long life.

Gears

- Special heat treatment ensures proper surface and core hardness to resist impact loading, case crushing, tooth breakage, and pitting.
- Shaved gear tooth surface prevents excessive contact stresses on mating teeth and reduces pitting.

Carriers

- Precise shaft hole locations provide correct mesh and load distribution between gears and proper tooth contact for efficient oil flow.
- Special thrust washer face surface finish helps prevent wear and reduce gear misalignment.

Anti-friction bearings

- Smoother surface finish on races and rollers leads to lower rolling resistance and friction, resulting in longer life.
- Precision-engineered roller crown distributes loads across rollers to prevent gear misalignment.

Planet shafts

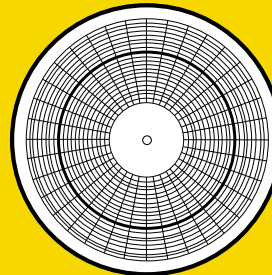
- Precise tolerances resist premature bearing wear.
- Special surface finish allows maximum needle bearing life and performance with minimal rolling resistance.

Cat transmission components vs. competitive components

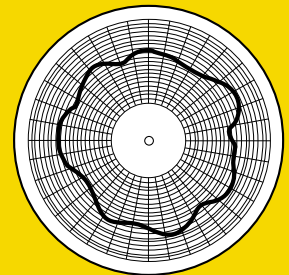
Metallurgical and chemical analyses reveal critical differences between Caterpillar and competitive transmission components.

- Competitive gears may feature inconsistent tooth shapes, improper heat treatment, and rough surface finish, which can affect performance and shorten life.
- Competitive carriers may feature incorrect shaft hole locations and rough thrust washer surface finishes, which can lead to premature gear, bearing, or transmission failure.
- Competitive bearings may feature a rough surface finish and improper roller crown, which can cause damage and failure of related components.

Competitive planet shafts may feature poor roundness and rough surface finish, which can result in reduced bearing life or failure.



Cat Planet Shaft



Competitive Planet Shaft

(highly magnified cross-section)



Comprehensive service and support

When your drive train needs service, our professional technicians have the training and tools to get you back to work quickly. We provide off-the-shelf component availability backed by the Caterpillar worldwide parts network.

Give us a call or drop by our parts counter. We'll show you how we can help lower your costs with the highest quality drive train components, a wide range of Exchange parts (including Cat Reman components), and the most comprehensive service and support available.

For more information, see us today or visit Caterpillar's web site at <http://www.CAT.com>.

