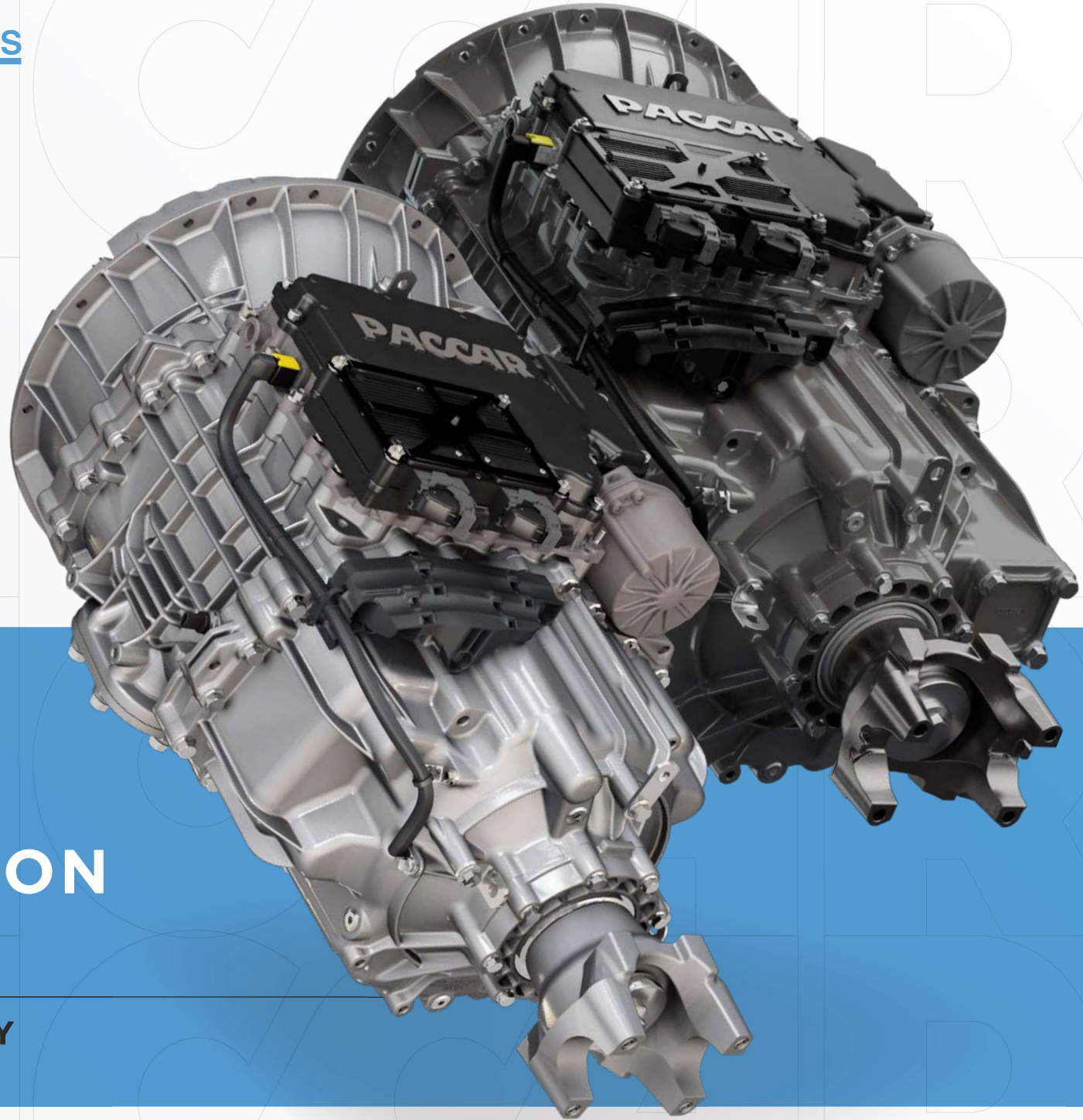


PACCAR TRANSMISSIONS



PACCAR TX-12 +
PACCAR TX-12 PRO

**TRANSMISSION
SERIES**

POWERED BY QUALITY



SMARTER BY DESIGN

PACCAR's TX-12 transmission series is the lightest in its class. Featuring a weight-saving robust aluminum housing and cooler-less lubrication system, with up to 1,850 LB.-FT. torque-capability, this heavy-duty transmission delivers an impressive combination of performance and efficiency. Fully integrated communication between the engine and transmission smooths operation and offers excellent overall gear ratio coverage, with exceptional low-speed maneuverability.

PRECISION-BUILT FOR GREATER EFFICIENCY, PRODUCTIVITY, AND PROFITABILITY

This innovative design results in an automated transmission that delivers significant long-term operating advantages to owners and operators of PACCAR powered trucks.

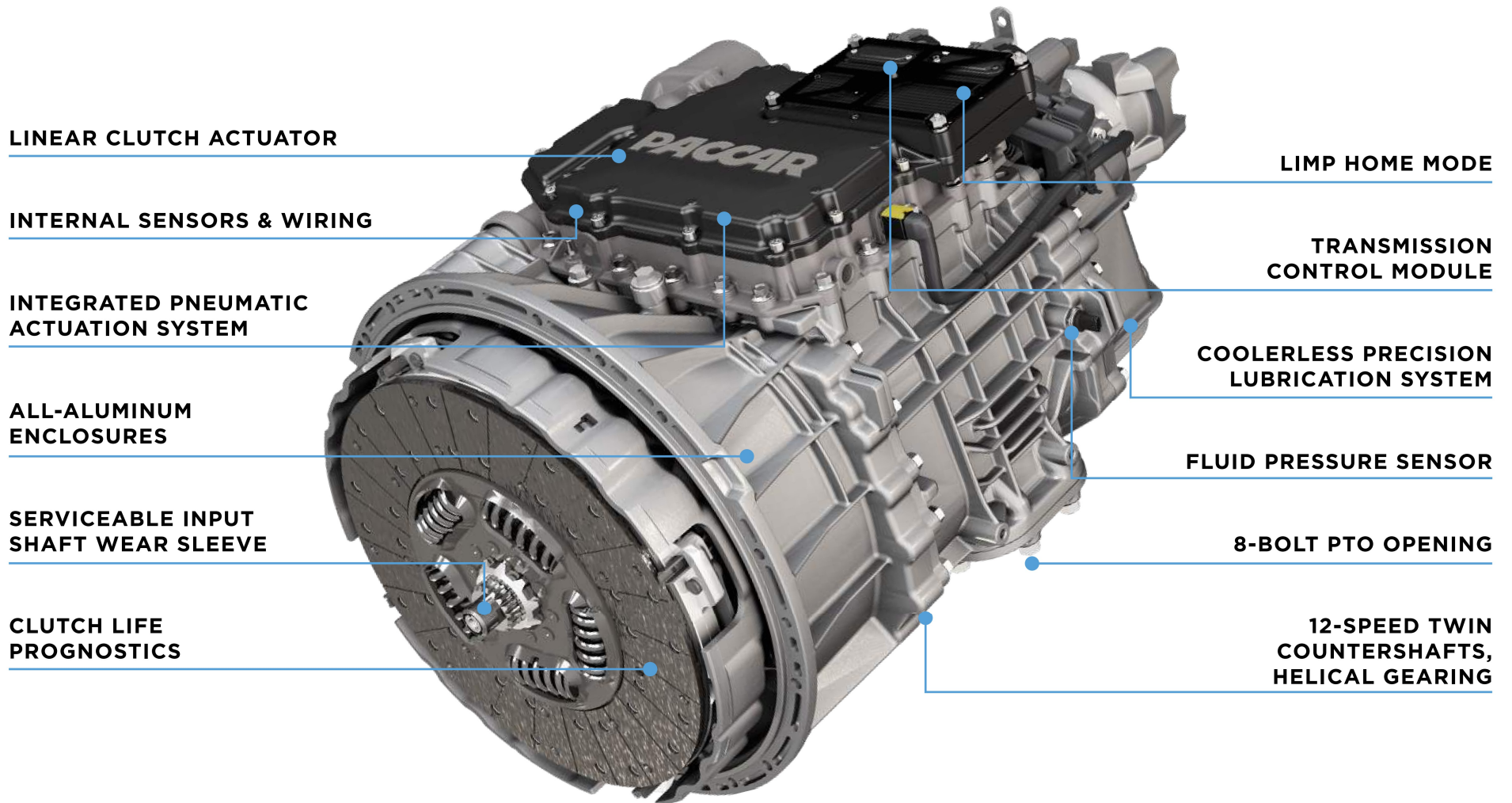


DESIGNED TO TAKE ON YOUR ENVIRONMENT

PACCAR's TX-12 transmission series were designed from the ground up to work seamlessly with PACCAR engines. These purpose-built automated transmissions represent major advancements in powertrain performance, productivity, and efficiency.

ADVANCED ENGINEERING

PURPOSE-BUILT AUTOMATED
TRANSMISSION; NOT CONVERTED
FROM A MANUAL TRANSMISSION.



COMPARISON

HARDWARE

FORWARD GEARS

12

12

REVERSE GEARS

2

2

CLUTCH

Heavy Duty

Extreme Duty

OIL COOLER

No

No

OIL TEMPERATURE AND PRESSURE SENSOR

Yes

Yes

TRANSMISSION MOUNTED PTO

8-bolt bottom std., 4-bolt rear option

8-bolt bottom std., 4-bolt rear std.

SYSTEM WEIGHT

657 LBS.

665 LBS.

OIL CAPACITY

16 PTS.

16 PTS.

CAPABILITIES

MAX GCWR

110,000 LBS.

70,000 LBS.

MAX ENGINE TORQUE

1,850 LBS.-FT.

1,700 LBS.-FT.

MAX ENGINE HORSEPOWER

510 HP

455 HP

LOWER SPEED CRUISE SPEED LIMIT

1,025

1,200

MAX PTO OUTPUT

95 HP combined

95 HP combined

MOBILE PTO

Yes

Yes

SPLITSHAFT PTO

No

No

COMPATIBLE ENGINES

PX-9, MX-11, MX-13

PX-9, MX-11

TYPICAL APPLICATIONS

Car Hauler, Inter-city, Highway
Delivery, Linehaul

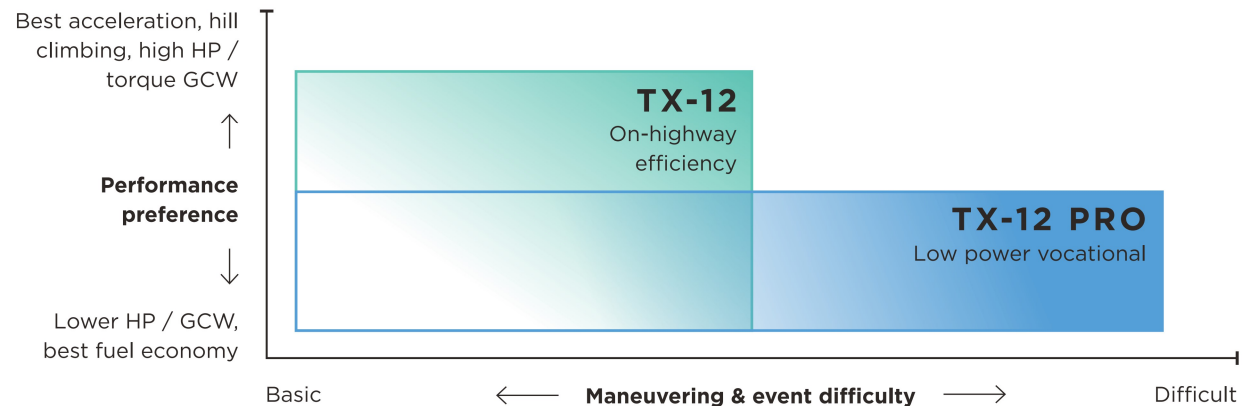
Dump, Municipality, Tanker, Tractor



WARRANTY	TX-12	TX-12 PRO
TRANSMISSION		
LINE HAUL	5 years / 750K MI. / 1.2M KM.	—
STANDARD (CONSTRUCTION, PICKUP, DELIVERY)	—	3 YRS / 300K MI. / 480K KM.
CLUTCH		
LINE HAUL	3 years / 350K MI. / 560K KM.	—
PICKUP AND DELIVERY	3 years / 350K MI. / 560K KM.	3 years / 350K MI. / 560K KM.
CONSTRUCTION	3 years / 300K MI. / 480K KM.	3 years / 300K MI. / 480K KM.
MAINTENANCE		
LUBRICATION INTERVAL		
LINE HAUL	750K MI. / 1.2M KM.	—
STANDARD (CONSTRUCTION, PICKUP, DELIVERY)	—	250K MI. / 400K KM.
CLUTCH SERVICE LIFE		
LINE HAUL	Maintenance-free	Maintenance-free
STANDARD (CONSTRUCTION, PICKUP, DELIVERY)	Maintenance-free	Maintenance-free

TX-12 VS. TX-12 PRO

Each variant is designed for specific applications and environments, the biggest differences lie in their overall capabilities (engine torque and GCWR).



INTELLIGENT TECHNOLOGY

FEATURE	DEFINITION	TX-12	TX-12 PRO
HILL START AID	Prevents unintended roll back or roll forward. When the grade exceeds the programmed threshold, foundation brakes hold the truck for a controlled launch. It works when pointing uphill in drive or facing downhill in reverse.	✓	✓
AUTO NEUTRAL	Automatically shifts the transmission into neutral once the parking brake is engaged to prevent unintentional movement. Safety features like these not only reduce accidents but can also help meet the latest CSA regulations.	✓	✓
ENGINE OVERSPEED PROTECTION	The transmission system upshifts if necessary to prevent engine over-speed in all modes.	✓	✓
ENHANCED ENGINE BRAKING	Downshifts the transmission to help slow the truck on long, steep descents and increases brake pad life.	✓	✓
URGE TO MOVE	Drivers simply release the brake pedal to automatically inch forward, similar to the feel of a passenger car.	✓	✓
CREEP MODE	Enables the driver to “creep” at low speeds, offering ultimate control.	✓	✓
NEUTRAL COAST	Fuel-saving feature that disengages the driveline on slight downhill grades.	✓	✓
OPTIMIZED GEAR SELECTION	The appropriate starting gear is selected and makes shift decisions based on grade, vehicle weight, engine torque and throttle position—skip shifting when appropriate, making the most efficient shift changes based on those conditions.	✓	✓

BUILT-IN RELIABILITY

PACCAR protects your investment with a series of industry-exclusive preventive maintenance features. The transmission fluid pressure sensor, for example, notifies the driver of low oil conditions to prevent system damage. Smart prognostics for clutch replacement helps you to better plan maintenance schedules. The electrical system is fully encased, minimizing exposure and corrosion to wires and connections. A vehicle oil-coalescing air filter protects the transmission system from contamination. And there is so much more, all designed for unprecedented dependability.

SOLID SUPPORT

The PACCAR TX-12 series are quality-manufactured for a long service life and comes with up to a five-year or 750,000 miles warranty (depending on application). The clutch carries a three-year warranty. Several extended protection plan options are also available. When it's time for maintenance, you can count on the expert, factory-trained technicians available at hundreds of dealer locations throughout North



America. In addition, PACCAR offers 24/7 emergency roadside assistance through PACCAR Parts 365 Center for as long as you own the truck.

SIMPLIFIED MAINTENANCE

The PACCAR TX-12 series greatly reduces downtime and maintenance cost. Offering lube change intervals up to 750,000 miles (linehaul) and requires only 16 pints of oil—nearly half of what similar transmissions specify. A greaseless 430mm self-adjust clutch is maintenance-free. The input shaft wear sleeve can be replaced quickly and easily—without a costly and time-consuming teardown.

FEATURE	DEFINITION	TX-12	TX-12 PRO
INTEGRATED PREDICTIVE FEATURES	When paired with the optional Predictive Cruise Control system, the PACCAR TX-12 Series offers additional fuel savings through the integrations of Predictive Cruise Control, Predictive Shifting and Predictive Neutral Coast.	✓	✓
BLENDED BRAKING	Allows for smoother low speed maneuvering by allowing the clutch to remain engaged even with light brake application. This reduces the number of stops and launches required to complete precision activities, such as hooking a trailer or backing into a dock.	✓	✓
ROCK FREE	Helps avoid getting stuck in the sand, mud or snow by using the accelerator to rock the vehicle free.		✓
OFF-HIGHWAY CALIBRATION	Launch and shift points are tuned for changing off-highway conditions with a bias towards shifting less often.		✓
SECONDARY CONFIGURATION	Enables driver to toggle between two calibrations to tailor the driving experience for the load or terrain		✓
PAVER ASSIST	Allows the driver to go directly from Neutral (N) mode to Drive (D) mode without a vehicle service brake pedal application. This feature is useful in paving applications to reduce the lumping of material when the dump vehicle is disengaging from the paving machine.		✓

DRIVING SMARTER HAS NEVER BEEN THIS EASY

Of all the variables that contribute to an efficient operation, how well a truck can be driven is still the one factor that matters most.

IMPROVED DRIVER PERFORMANCE

Optimized shifting and clutch engagement makes the vehicle easier and more productive to operate. PACCAR's automotive-style column shifter allows the driver to keep both hands on the wheel, concentrating on traffic and the road ahead.

BETTER FUEL ECONOMY, FLEET-WIDE

The PACCAR TX-12 constantly monitors changes in road grade, vehicle speed, acceleration, torque demand, weight, and engine load to keep the truck in the most fuel-efficient gear possible. These intelligent features will not only improve performance but also driver confidence. And drivers new to the business find they can reach a high level of productivity sooner.

ENHANCED RECRUITMENT AND RETENTION

Running trucks that are easier to operate helps fleets expand their pool of recruits. Training is simplified and less time consuming. New drivers reach optimal performance sooner. And drivers of all experience levels find the job more satisfying when matched with the intuitive control features and quality they've come to expect from PACCAR-powered trucks—a big reason fleets tend to retain their best people longer.

YOUR PAYOFF

Better, more consistent driving habits throughout your fleet—dedicated to optimizing every drop of fuel.



A PACCAR EXCLUSIVE

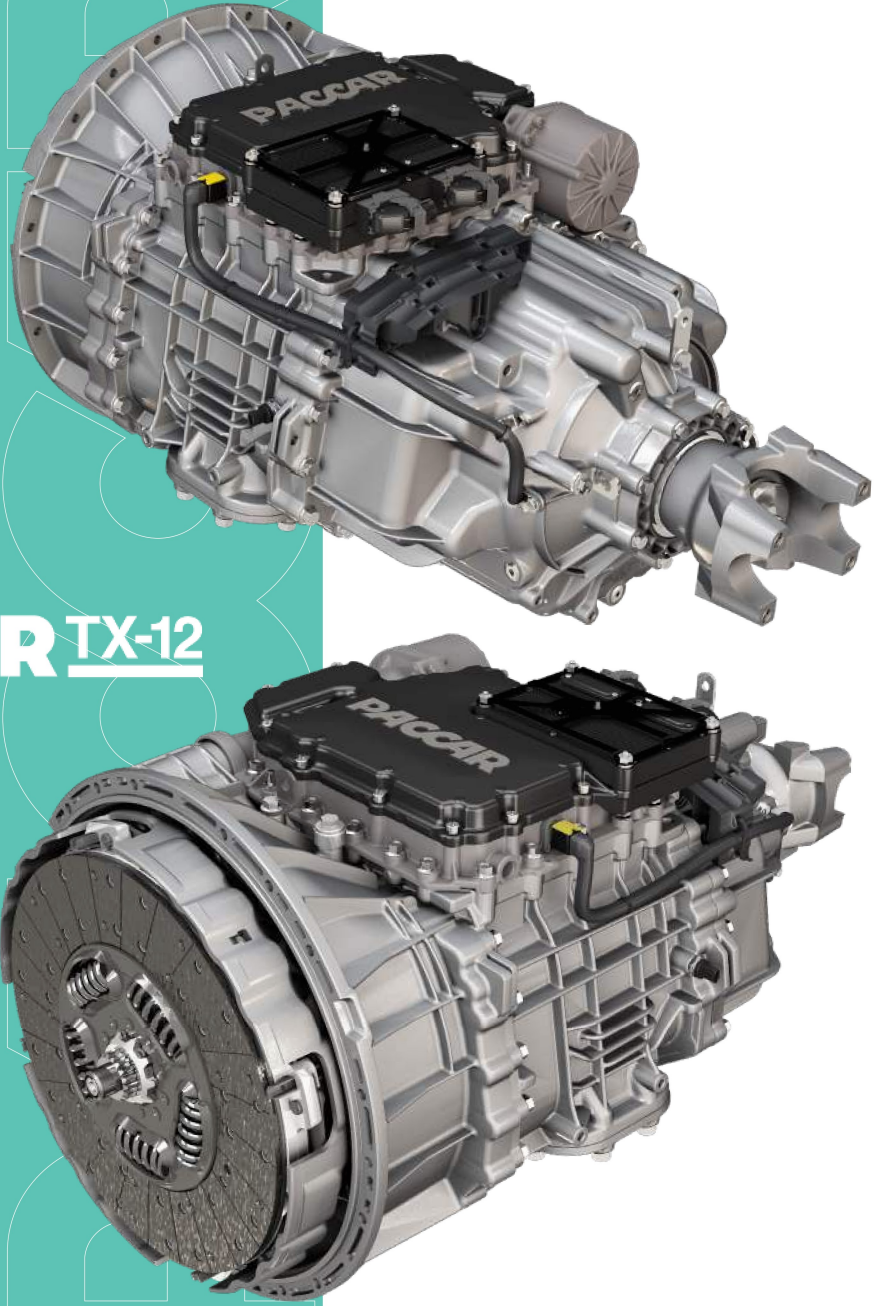
The PACCAR TX-12 comes standard with an ergonomic, automotive-style column shifter that is simple and intuitive to operate. Transmission controls include Drive, Neutral, Reverse, and Manual modes as well as a selector for the engine brake.





PACCAR

PACCAR TX-12



AVAILABLE ENGINES



PACCAR MX-11



PACCAR MX-13



PACCAR PX-9

DRIVE EFFICIENTLY. WORK CONFIDENTLY.

Designed for use with engines up to 1,700 LBS.-FT. of torque and a maximum Gross Combination Weight Rating of 70,000 pounds, it's loaded with features used around the job site like an extreme duty clutch for improved low-speed maneuvering, rock free mode to help get unstuck in mud or sand, an off-highway calibration tuned for changing soil conditions, and dual PTO openings to power what you need. Drivers will appreciate the confident launch performance on grades thanks to hill start aid, the smooth shifting and intelligent gear selection logic. The new secondary mode gives drivers the ability to toggle between two performance calibrations for a tailored driving experience that accounts for the load and terrain.

- **EFFICIENT TWIN-COUNTERSHAFT DESIGN**
- **TRANSMISSION FLUID TEMPERATURE AND PRESSURE SENSORS ALERT DRIVER BEFORE SYSTEM DAMAGE OCCURS**
- **STANDARD 8-BOLT BOTTOM AND 4-BOLT REAR PTO MOUNTING LOCATIONS WITH A COMBINED 95 HORSEPOWER CAPACITY**
- **250,000-MILE LUBE CHANGE INTERVAL**
- **WIDE RATIO COVERAGE FOR EXCELLENT LOW-SPEED MANEUVERABILITY**

PACCAR POWERTRAIN'S KEY COMPETITIVE ADVANTAGES

DEDICATED AUTOMATED DESIGN

- Fast and smooth shifting
- Fewer components

IMPROVED EFFICIENCY

- Aluminum housing
- Precision lubrication

LOW SPEED MANEUVERABILITY

- New diaphragm spring clutch
- Next generation controls
- Pneumatic actuation
- Better startability

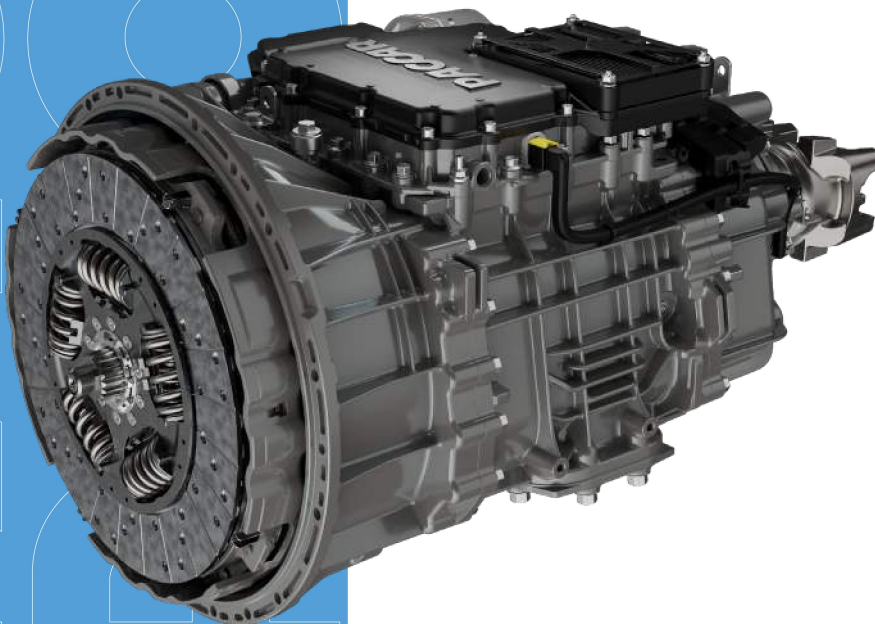
IMPROVED RELIABILITY

- Encapsulated electronics
- Oil pressure monitoring
- Oil temperature monitoring

LOWER COST OF OWNERSHIP

- Requires approximately half the fluid requirements than comparable automated transmissions
- Longer vocational maintenance interval

PACCAR TX-12 PRO



AVAILABLE ENGINES



PACCAR MX-11



PACCAR PX-9

**CAN-BASED PTO
ENGAGEMENT CONTROL**

Dual consent PTO engagement process between the transmission controller and vehicle controller to ensure safe engagement and prevent equipment damage

**HARDWIRED PTO ENGAGEMENT
CONTROL (OPTIONAL)**

Available to support the integration requirements of many body installers. See PTO Manual for complete details.

8-BOLT PTO

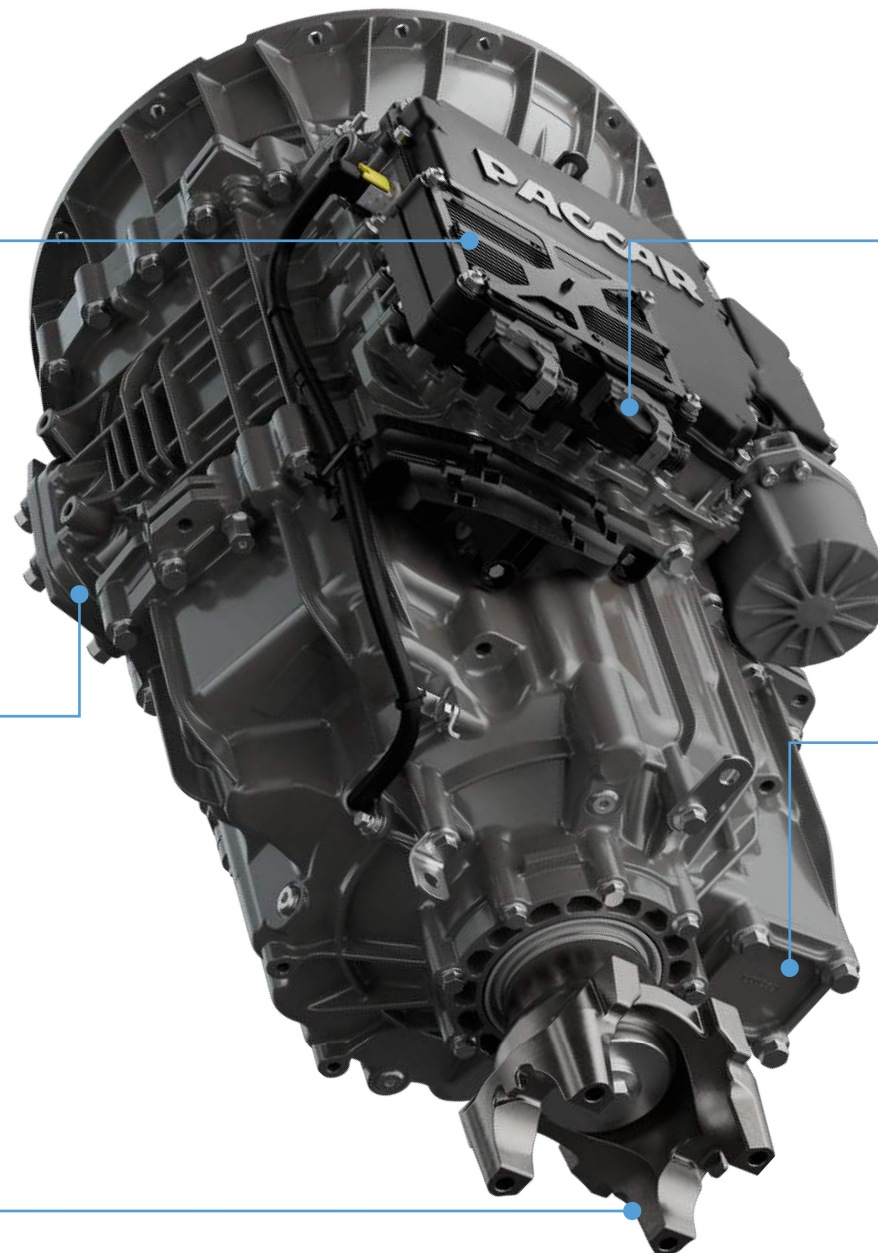
Deliver a combined 95 HP / 383 LBS.-FT. to power equipment

4-BOLT REAR-MOUNT PTO

Deliver a combined 95 HP / 383 LBS.-FT. to power equipment

MOBILE PTO

Available in Start Gears: 2nd, 4th and R2.



TX PRO SERIES PTO COMPARISON

FOR VOCATIONAL CUSTOMERS THAT
REQUIRE PTOs, PACCAR RECOMMENDS
ONE OF OUR PRO TRANSMISSION
VARIANTS COMPARED BELOW.

	TX-12 PRO	TX-18 PRO
MAXIMUM PTO OUTPUT POWER	95 HP / 383 LBS.-FT. ¹	160 HP / 610 LBS.-FT. ¹
MOBILE PTO	Yes Start gears: 2nd, 4th, and R2 No shifts allowed (stays in Start Gear)	Yes Limited to low range (6th gear or R3 in reverse) No shifts allowed (stays in Start Gear)
SPLIT SHAFT PTO	No. If Split Shaft is needed, consider the TX-18 Pro.	Yes
FEPTO/REPTO	Yes	Yes

¹PTO horsepower and torque rating is 8-bolt only, rear PTO only, or both PTO combined.

PRODUCT ENHANCEMENTS

HIGHER THERMAL CAPACITY CLUTCH
ALLOY COMPONENTS

OPTIMIZED CLUTCH PRESSURE
PLATE MASS

CORRESPONDING TRANSMISSION/
CLUTCH ENERGY SOFTWARE TO
PROTECT AND CONTROL CLUTCH

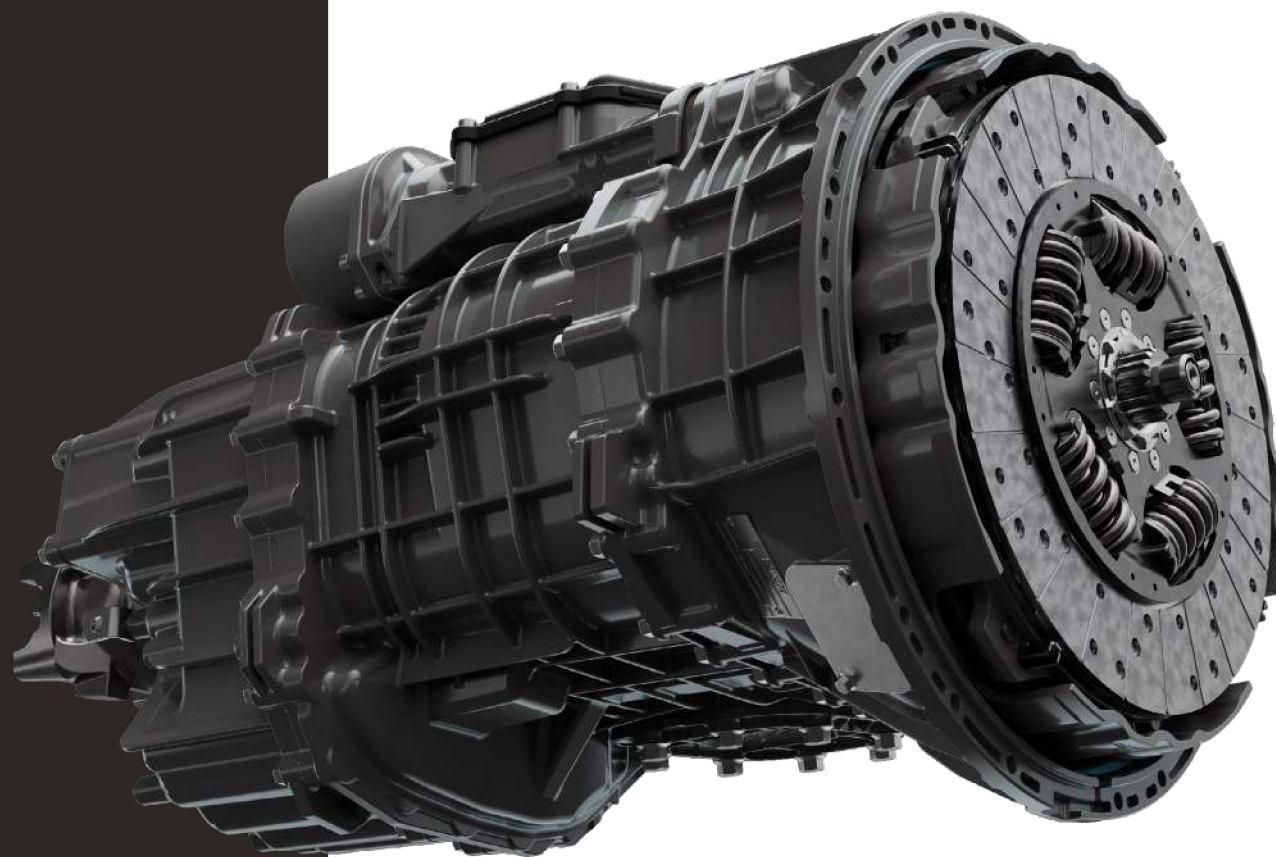
TUNED FOR VIBRATION PROFILES OF
PX-9 AND MX-11 ENGINES

DURABILITY IMPROVEMENTS





INCREASED CLUTCH CYCLE ENDURANCE

HIGH STRENGTH CLUTCH DAMPING SPRINGS

MODIFIED CLUTCH DIAPHRAGM SPRINGS
FOR IMPROVED DURABILITY



CALIBRATIONS

PERFORMANCE	DESCRIPTIONS	APPLICATION	TX-12	TX-12 PRO
 ECONOMY	Distinct on-highway shift points designed to maximize fuel economy with some performance (i.e., route time) tradeoffs.	Trucks that want to maximize fuel economy.	✓	
 PERFORMANCE	On-highway shift points tuned to realize higher performance (i.e., quicker route times) from the engine rating at all vehicle weights.	Performance-minded line haul or regional haul trucks where route time or performance on grades is more important than fuel economy.	✓	✓
 TANKER	Fast shifts for unbaffled tankers to minimize tanker load sloshing resulting in smoother drivability performance.	For unbaffled tank haulers; could also be an improvement for baffled tankers.	✓	✓
 OFF-HIGHWAY	Launch and shift points tuned for changing off-highway conditions. Shifting limited - bias towards shifting less often.	All truck types and weights, anytime the truck is in off-highway conditions - unmaintained roads, soft soil, or difficult terrain.		✓



VISIT
PACCARPOWERTRAIN.COM
TO FIND YOUR LOCAL DEALER

PACCAR POWERTRAIN

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PACCAR TX-12 Series Brochure 24

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