

THE INTEGRATED DETROIT® POWERTRAIN IN THE

CASCADIA®



FUEL EFFICIENT BY DESIGN

Detroit® seamlessly integrates its engines, transmissions, and axles for improved fuel efficiency. The Integrated Detroit Powertrain combines with the aerodynamic improvements of the Freightliner® Cascadia® and Western Star® 57X to produce the industry's next generation of fuel economy.

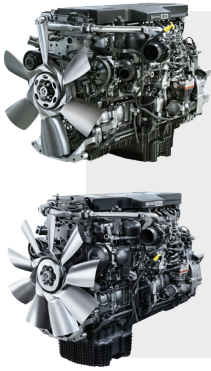
Integrated Detroit Powertrain Ratings

		DD15 GEN 5	DD13 GEN 5
DETROIT® ENGINE	Power	425 HP @ 1500 RPM 455 HP @ 1500 RPM	425 HP @1500 RPM 450 HP @1500 RPM
	Torque	1750 LB-FT @ 900 RPM	
	Displacement	906 CU IN (14.8 L)	781 CU IN (12.8 L)
DETROIT® DT12® TRANSMISSION	Transmission	Direct Drive (available with 2.16, 2.28, and 2.41 Ratios) Over Drive (available with 2.64 and 2.85 Ratios)	
	Torque Input	1750 lb-ft	
	GCW Rating	80,000 lbs (36,300 kg)	80,000 lbs (36,300 kg)
	Cruise Control	Intelligent Powertrain Management (IPM)	
DETROIT® DRIVE AXLE	6x4 Configuration	40,000 lb Tandem with Axle Lubrication Management (ALM2)	
		2.28 Rear Axle Ratio* 2.16 Rear Axle Ratio*	2.85 Rear Axle Ratio 2.64 Rear Axle Ratio
	6x2 Configuration	20,000 lbs Single	
		20,000 lbs Tag	
	4x2 Configuration	2.28 Rear Axle Ratio	2.85 Rear Axle Ratio
23,000 lbs Single			
DETROIT® STEER AXLE	Detroit Steer Axle	12,000 lbs, 12,500 lbs, 13,300 lbs	

*2.28 or 2.16 rear axle ratio requires driveline changes and trans oil cooler



DD15® GEN 5 AND DD13® GEN 5 ENGINE



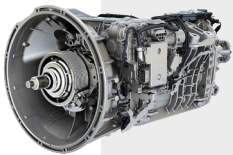
We all know slowing down is the best way to save fuel, so we've designed an engine that can cruise at the same road speed at lower RPMs, reducing fuel consumption and friction. This is made possible by integrating our fastest-ever tandem axle and made easy with our smooth-shifting DT12, making the Cascadia and 57X even more fuel efficient.

- Dropping engine speed reduces the number of fuel injections, dramatically improving fuel economy
- Integrated with DT12® automated manual transmission and fast axle ratio, this engine torque curve keeps you in top gear longer
- Lower RPMs at cruise speed reduces friction, leading to higher efficiency and reliability
- Updated aftertreatment system reduces impacts from regens and improves uptime

COMPLIANCE

- The DD15 Gen 5 and DD13 Gen 5 engines are compliant with 2021 Greenhouse Gas (GHG21) requirements

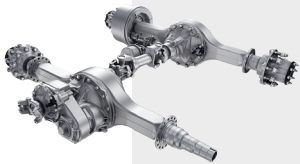
DT12® TRANSMISSION



With our DT12 transmission linking engine to axles, the Integrated Detroit Powertrain is not only strong and efficient, but smooth and safe to operate as well. With 12 tightly spaced speeds, the DT12 always knows where the sweet spot is.

- The Cascadia and 57X features the latest generation of intelligent powertrain management, a feature which uses terrain maps to know the route ahead and improves transmission adjustments and engine functions so the truck's kinetic energy works with its surroundings, not against it
- The "superfinished" gears in the new DT12, creates an even greater mesh between gears, which reduces parasitic losses and increases fuel efficiency
- The electronically enhanced eCoast is integrated with the downsped engine, now working at 500 RPM, adding to fuel savings and performance
- An integrated communication network allows the DT12 to share damage-reducing information, such as clutch overloading and active driveline protection

DETROIT® TANDEM AXLES



Our Detroit drive axles feature fast ratios and are engineered to improve fuel economy without sacrificing durability.

- Available in a 6x4 axle configuration with a 2.28 or 2.16 rear axle ratio with a DD15 Gen 5 and Direct Drive DT12
- Available in a 6x4 axle configuration with a 2.64 or 2.85 rear axle ratio with a DD13 Gen 5 and Over Drive DT12
- Axle Lubrication Management 2.0 (ALM2) passively regulates oil flow to the ring gear, which along with friction optimized bearings, improves fuel efficiency

DETROIT® STEER AXLES



Detroit steer axles match rugged strength with a lighter-weight design and function optimally with our other components.

- Available in 12k, 12.5k, and 13.3k ratings for tailored weight distribution
- Needle bearings won't damage the kingpins and are designed for the life of the axle

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