

THE INTEGRATED DETROIT™ POWERTRAIN IN THE NEW *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 new Cascadia® to produce the industry's next generation of fuel economy.

Integrated Detroit Powertrain Ratings		DD15	DD13
DETROIT™ ENGINE	Power	400 HP @ 1625 RPM	400 HP @ 1625 RPM
	Torque	1750 lb-ft @ 1075 RPM	1750 lb-ft @ 1075 RPM
	Displacement	906 cu in (14.8 L)	781 cu in (12.8 L)
DETROIT™ DT12™ TRANSMISSION	Transmission	Direct Drive	Over Drive
	Torque Input	1750 lb-ft	1750 lb-ft
	GCW Rating	80,000 lbs (36,300 kg)	80,000 lbs (36,300 kg) with 2.85 Ratio
	IPM4	Intelligent Powertrain Management	Intelligent Powertrain Management
DETROIT™ DRIVE AXLE	6x4 Configuration	40,000 lb Tandem with Axle Lubrication Management	40,000 lb Tandem with Axle Lubrication Management
		2.28 Rear Axle Ratio* 2.16 Rear Axle Ratio* (Mid 2017)	2.85 Rear Axle Ratio
	6x2 Configuration	20,000 lbs Single	20,000 lbs Single
		20,000 lbs Tag	20,000 lbs Tag
		2.28 Rear Axle Ratio	2.85 Rear Axle Ratio
	4x2 Configuration	23,000 lbs Single	23,000 lbs Single
2.28 Rear Axle Ratio		2.85 Rear Axle Ratio	
DETROIT™ STEER AXLE	Detroit Steer Axle	12,000 lbs, 12,500 lbs, 13,300 lbs	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® or DD13® 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 new Cascadia 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
- The six-blade cooling fan design draws less power, so the engine doesn't burn as much fuel

COMPLIANCE

- The DD15 and DD13 engines are compliant with 2017 Greenhouse Gas (GHG17) 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 new Cascadia features the latest generation of intelligent powertrain management (IPM4), 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

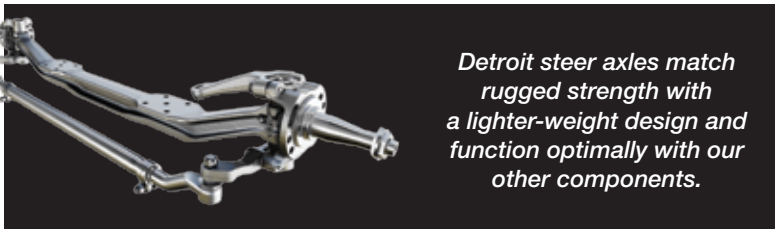
DETROIT™ TANDEM AXLES



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 (mid 2017) rear axle ratio with a DD15 and Direct Drive DT12
- Available in a 6x4 axle configuration with a 2.85 rear axle ratio with a DD13 and Over Drive DT12
- The tandem rear axles feature an optional axle lubrication management (ALM) system that actively regulates the oil level at the ring gear and friction-loss optimized pinion bearings to reduce friction and parasitic loss, extending gear life and further improving 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