

# DETROIT™ POWERTRAIN

DD15®

DT12™

TANDEM  
AXLES

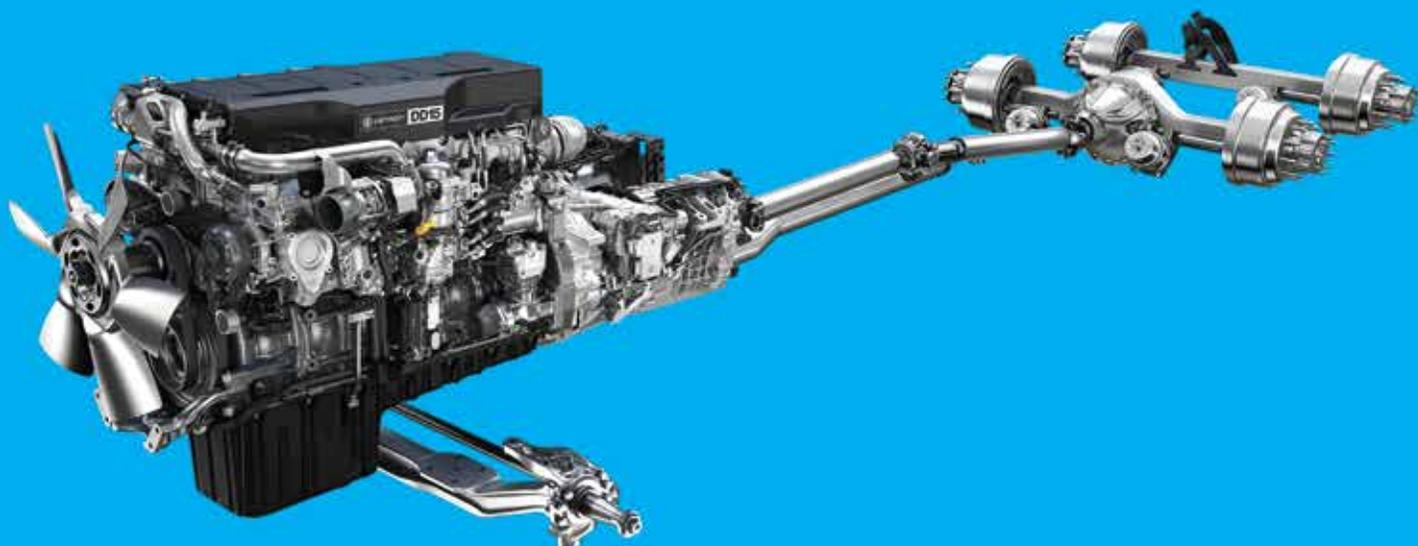
STEER  
AXLE



INTRODUCING THE *integrated* DETROIT™ POWERTRAIN  
ONLY ONE COMPANY CAN DELIVER THIS LEVEL OF *integration.*

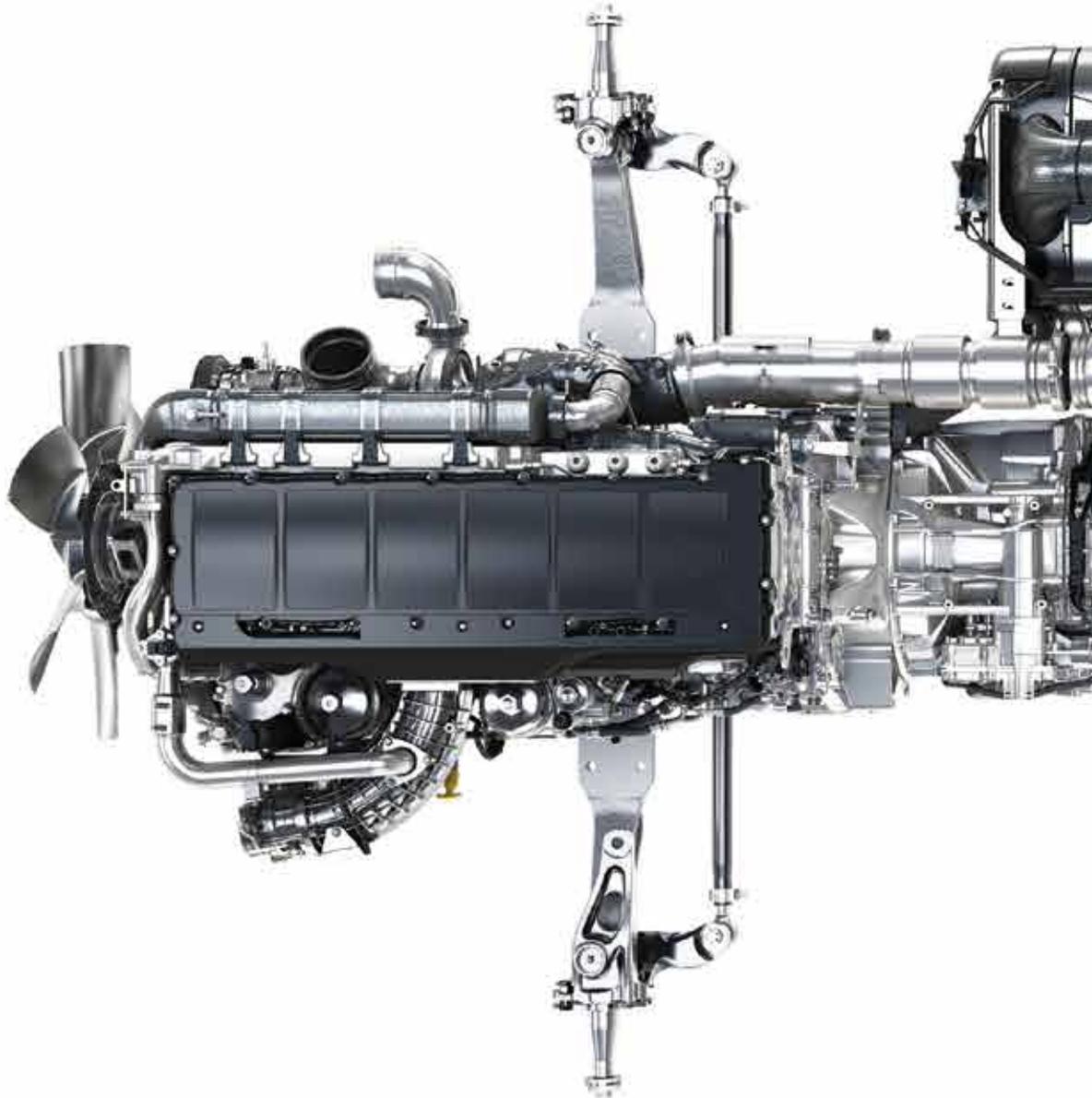


**DETROIT™**  
Powertrain*i*



# **Detroit has designed, engineered and manufactured the engine, transmission and axles to work together to lower your Real Cost of Ownership.<sup>SM</sup> Available in the Freightliner Cascadia<sup>®</sup> Evolution and the all new Western Star<sup>®</sup> 5700.**

The Detroit™ Powertrain *integrates* the most fuel-efficient DD15<sup>®</sup> engine ever, with the technologically advanced DT12™ transmission and specifically designed Detroit tandem axles that put the power to the pavement. But the Detroit Powertrain is more than that. It provides *integration* like only Detroit can. Because the engine, transmission and axles are all engineered and designed to work together as one. Coupled with our cutting-edge technologies, state-of-the-art component communication and one-stop parts and service support, no other powertrain does more to deliver real profits to your bottom line.



## DD15<sup>®</sup> 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, made possible by **integrating** our fastest-ever tandem axle and made easy with our smooth-shifting DT12.*

With electronics calibrated to deliver greater horsepower and torque at lower RPMs, our flagship DD15 engine keeps your truck in top gear more often and cruises at a more efficient engine speed. The slower revolutions mean reduced friction across the power range,

prolonging the engine's life. A six-blade fan also reduces power draw without sacrificing cooling capabilities.

The 1-Box™ Emissions Package combines DOC, DPF, SCR catalyst and DEF doser to create optimal packaging solutions for

a variety of truck configurations.

The DD15 is compliant with 2014 Greenhouse Gas (GHG14) requirements — without requiring drivers to adjust their driving patterns or styles.



## 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 direct drive, the DD15's power isn't wasted while cruising in top gear. With 12 tightly spaced speeds, the DT12 always knows where the sweet spot is.*

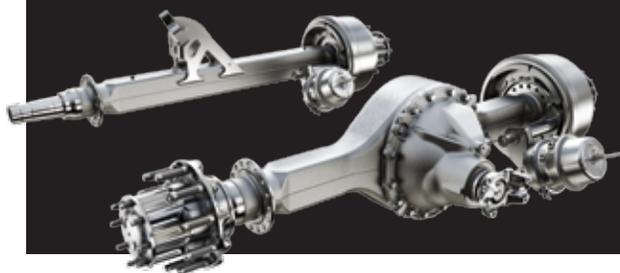
The DT12 transmission features **Intelligent Powertrain Management (IPM)**, which uses terrain maps to know the route ahead and adjusts transmission and engine functions. IPM **integrates** terrain maps into engine and transmission functions

so the truck works with its surroundings, not against, while eCoast idles the engine at a lower 500 RPM when off throttle for optimized fuel economy. Creep Mode improves low-speed maneuverability and makes it easier to do things like backing up

to loading docks and handling heavy traffic, while also improving start-off traction in slippery conditions.



## TANDEM AXLES



*A powertrain that pulls strong down low needs a fast axle, which is why we offer 6x2 single drive with tag axle and 6x4 tandem axles. These axles were **integrated** specifically with the downsped DD15 and DT12, to give you the performance, power and fuel economy you need.*

Detroit axles provide optimum efficiency and performance when working together with the DD15 engine and the DT12 transmission. The 6x2 single drive with tag axle configuration incorporates a non-driven tag axle on the tandem, reducing total weight (by 380 lbs.) and the number of moving parts. The 6x2

axle is integrated with the downsped torque curve and a direct-drive transmission to deliver better fuel economy regardless of cruise speed. A high-performance 6x4 tandem axle configuration is available for applications requiring superior traction. The **integrated** Detroit Powertrain also

features state-of-the-art steer axles that provide a 55-degree wheel cut for remarkably nimble maneuverability and employs needle bearings as opposed to bushings for increased durability. The result is rock-solid axles that integrate optimally with the other components.

# Parts, service and warranty. All from one single reliable source.

## FACTORY-BACKED WARRANTY

Detroit™ engine owners enjoy comprehensive warranty coverage, including a fast, hassle-free process and expedited parts and service for critical downtime situations.

### STANDARD WARRANTY

Item	Warranty Limits (Whichever Occurs First)		Repair Charge (Paid by Owner)	
	Months	Miles / Kilometers	Parts	Labor
Engine	0-24	Unlimited	No Charge	No Charge
Injectors	0-24	200,000 mi 320,000 km	No Charge	No Charge
Upon expiration of the 24-month warranty coverage, but within 500,000 mi / 800,000 km of use, the warranty continues to apply as follows:				
Major Components	25-60	500,000 mi 800,000 km	No Charge	Not Covered
DT12 Transmission	0-60	750,000 mi 1.2 million km	No Charge	No Charge
DT12 Clutch	0-36	350,000 mi 560,000 km	No Charge	No Charge
Detroit Axles	0-60	750,000 mi 1.2 million km	No Charge	No Charge

### MAINTENANCE INTERVALS

Item	Mi / Hr†	Severe Duty	Short Haul	Long Haul
Engine Oil & Filter Change*	Miles	25,000	35,000	50,000
	Hours	640	895	1,280
Fuel Filter Change	Miles	25,000	35,000	50,000
	Hours	640	895	1,280
Valve Lash Adjustment	Miles	Adjust at 100,000, at 500,000 and every 500,000 thereafter.		
	Hours	Adjust at 2,565, at 12,825 and every 12,825 thereafter.		
Diesel Particulate Filter	Miles	A check engine light will illuminate when ash requires removal. Normal DPF ash cleaning intervals are 300,000 to 400,000 miles.		
	Hours	A check engine light will illuminate when ash requires removal. Normal DPF ash cleaning intervals are 9,000 to 10,250 hours.		
DEF Pump Filter	Miles	150,000	175,000	250,000
	Hours	3,840	4,475	6,400

\* Recommended using the Detroit lube oil and oil analysis program.  
Severe duty is up to 30,000 annual miles and a vehicle that averages less than 5 miles per gallon (mpg).  
Short haul is between 30,000 and 60,000 annual miles and a vehicle that averages between 5.1 and 5.9 mpg.  
Long haul is over 60,000 annual miles and a vehicle that averages greater than 6 mpg.  
† Miles / Hours, whichever occurs first.

## DETROIT GENUINE PARTS

Authorized Detroit service outlets are staffed by factory-trained technicians who exclusively use Detroit™ genuine parts. Our technicians, graduates of our award-winning training program, know your powertrain inside and out. They're the experts who make sure that, with normal maintenance at recommended intervals, all components continue to perform at optimum power and efficiency for years to come. You can find expert technicians at hundreds of authorized Detroit service locations. Whether it's a new or remanufactured part, Detroit genuine parts precisely fit your engine, axles and transmission, giving you the performance, reliability and durability you count on from Detroit. Detroit genuine parts are covered by a factory-backed nationwide warranty, so you never have to worry about unexpected repair costs.

## EXTENDED SERVICE COVERAGE

Detroit engine extended service coverage (ESC) takes care of tomorrow's costs at today's pricing, extending your factory on-highway coverage for up to five-years/500,000 miles. So, whether you need your engine serviced three years from now, or a major repair right now, your engine ESC helps protect your investment.

From covering basic engine components to complete coverage, including aftertreatment, our ESC packages fit your needs and your budget by providing:

- Service at hundreds of Detroit authorized service locations
- Repairs performed by certified technicians
- Unmatched availability of Detroit genuine parts
- Coverage throughout the U.S. and Canada
- Availability to purchase without a late fee for up to 12 months, or for a nominal \$400 late fee between 13-18 months
- Ability to transfer coverage to subsequent owner, enhancing resale value



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