

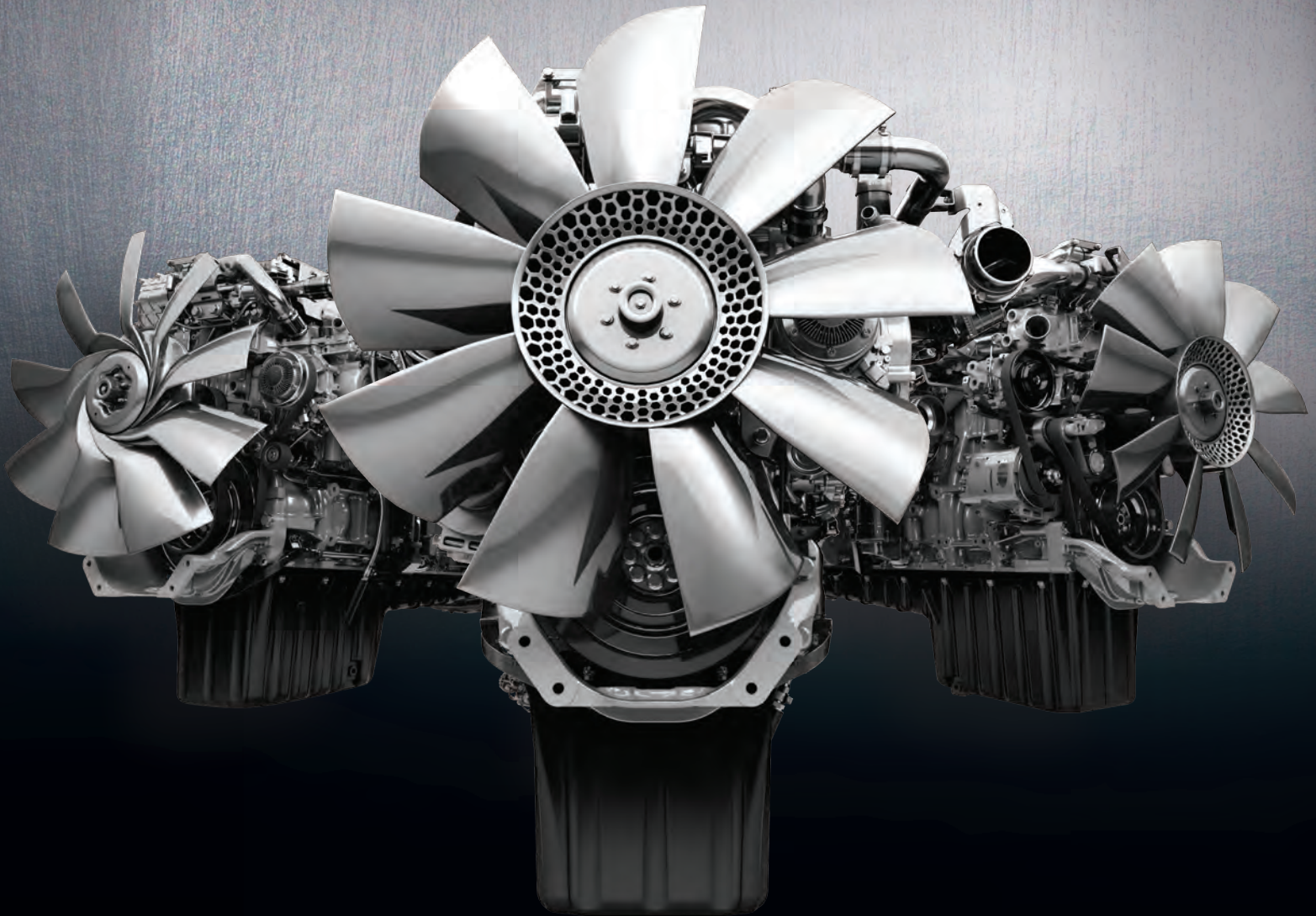
DETROIT™ Engines

DD13®

DD15®

DD15®TC

DD16®

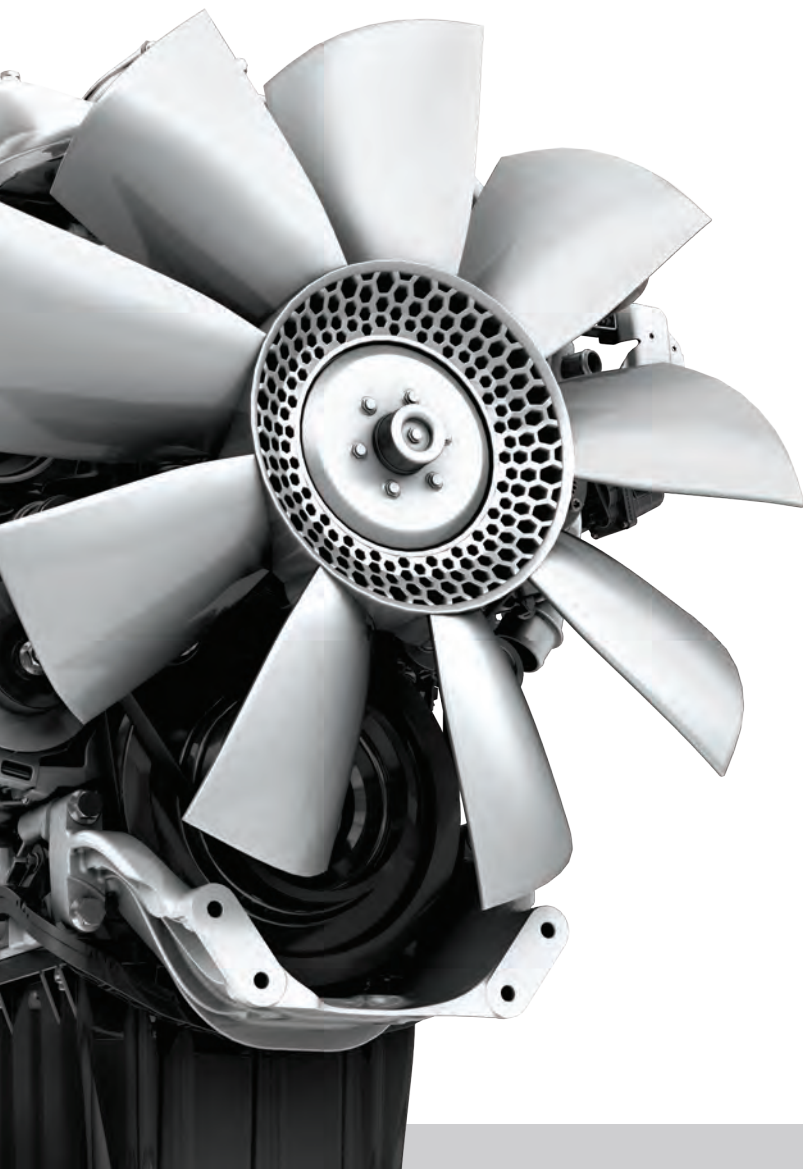


DETROIT™
DEMAND PERFORMANCE™

FEEL THE POWER. EXPERIENCE THE EFFICIENCY.

DETROIT™ ENGINES ARE BUILT FOR THOSE WHO DEMAND PERFORMANCE.

Looking for outstanding fuel economy to move freight across town or across country? Need optimal horsepower and torque response to handle tough jobs and rugged conditions? If your Freightliner or Western Star trucks are powered by Detroit engines, you've got nothing to worry about. Take a look at our DD13®, DD15®, DD15® TC and DD16® models. They're designed to perform and built to last. So you can turn productivity into profitability.



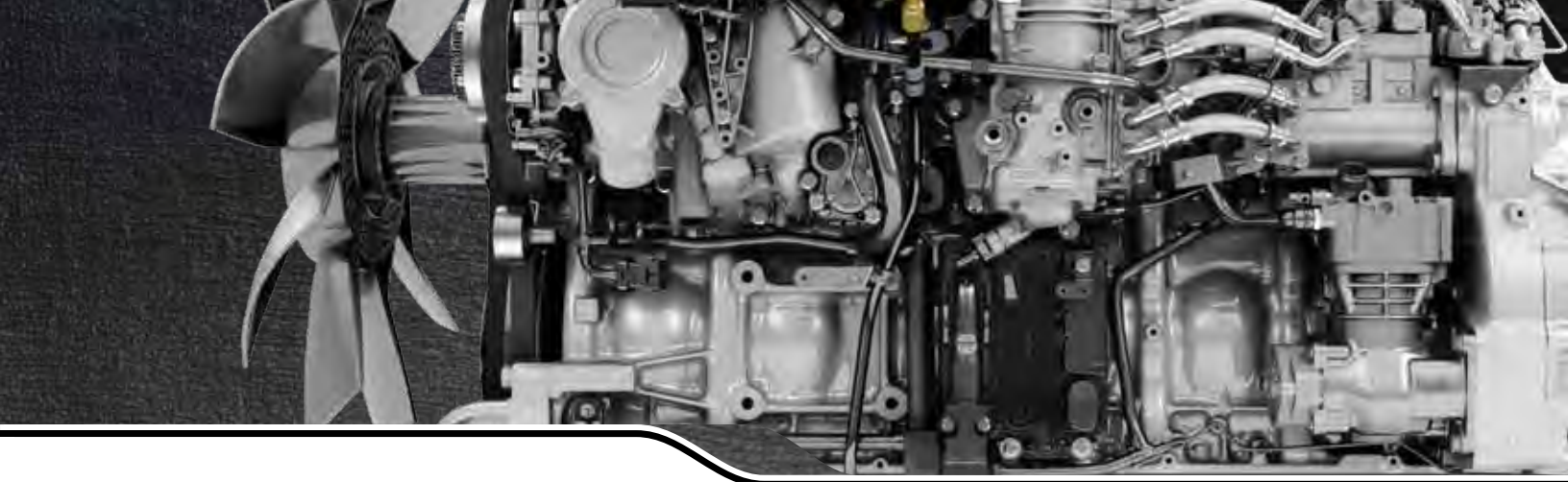
INNOVATIVE ENGINEERING

The fuel-efficient design makes the most of every gallon with an Amplified Common Rail System (ACRS™) that optimizes each injection event to minimize fuel consumption. Available exclusively in Detroit engines, ACRS works in unison with our DDEC® electronic engine controls to deliver the exact amount of fuel you need at the right moment, creating an optimal combustion event. All that work fine-tuning combustion means lower emissions, less engine noise and vibration, and less time wasted stopping at the pump. Everything, right down to the advanced cooling system that decreases fan on-time, was designed to minimize fuel consumption.

OPTIMIZED DRIVETRAIN EFFICIENCY

When it comes to maximizing the return on your Detroit-powered drivetrain, vehicle gearing is an important consideration. Spec'ing the right axles also is a critical factor in the fuel economy equation. To get the most out of each gallon of fuel, simply consult your local Detroit representative.

Our experts and vast support network will ensure you get the perfect engine and drivetrain combination to meet your needs. With the Detroit Spec Manager tool, we'll analyze your specifications and make sure that all performance and economy needs not only are met, but exceeded.



VIRTUAL TECHNICIAN

Our factory-installed Virtual Technician™ onboard diagnostic system takes the guesswork out of engine repair. When a truck's check engine light illuminates, data is collected immediately, providing a technical snapshot of the engine's status before, during and after a fault code event. This information is sent to you and to the Detroit Customer Support Center (CSC), where a trained representative can diagnose the issue, recommend service and even contact the nearest authorized locations with parts in stock. The CSC can tell you if you need to pull over so you don't cause further damage, or if you can stay on the road. It's like having a technician in every truck.

Virtual Technician's optional Visibility Package is a fleet management system that offers access to the Ground Traffic Control website. This groundbreaking system captures latitude, longitude, time and odometer readings for your trucks. With pinpoint accuracy, the system records vehicle stops, speeds, routes, mileage traveled by state, excessive idling, fuel consumption and other onboard events. The Visibility Package helps you manage your business more efficiently.

DDEC

Detroit DDEC is a suite of innovative features that allow you to better manage fuel economy, engine performance, driving efficiency and maintenance. You can utilize this technology to better control speed, assist in passing, optimize idle efficiency and even reward your drivers for reaching fuel economy targets. With DDEC, there also are several options available to fleet managers that will help drivers better control engine idling, shifting techniques and aftertreatment management. To learn more, contact your local Detroit dealer, distributor or representative.

BLUETEC

Detroit engines feature BlueTec® selective catalytic reduction (SCR) emissions technology, which was introduced to meet EPA 2010 emissions standards. This comprehensive system works in concert with exhaust gas recirculation and has been improved, while still meeting today's emissions standards.

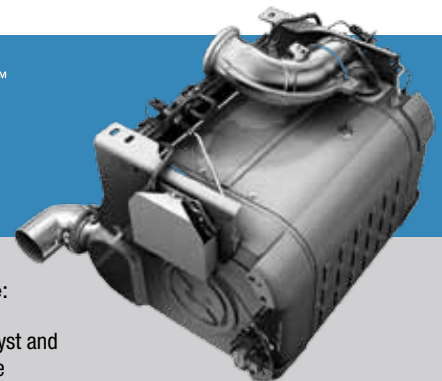
BlueTec includes the diesel oxidation catalyst (DOC), diesel particulate filter (DPF), diesel exhaust fluid (DEF) and an SCR catalyst to remove particulate matter and nitrogen oxide from the exhaust. The system cleans emissions downstream, helping the engine run more efficiently, which improves fuel economy. Most of the harmful exhaust is converted into nitrogen and water before being released from the tailpipe.

GHG14

All Detroit engines are 2013 OBD (OBD13) Certified and are compliant with 2014 Greenhouse Gas (GHG14) regulations.

1-BOX™

Only available with BlueTec Emissions Technology



1-Box™ Emissions Package:

- Combines DOC, DPF, SCR catalyst and DEF doser in the same package
- Enables lower exhaust back pressure for better fuel economy
- Provides optimal packaging solutions for a variety of truck configurations
- Enhancements to the new 1-Box make it lighter and more efficient
- Reduced number of parts for easier serviceability
- Liquid only DEF dosing for improved reliability and a less complex system

Detroit and DTNA engineers have developed several ways to package these components on the truck.



TECHNICAL SPECIFICATIONS

FROM 350-470 Horsepower	FROM 1250-1650 lb-ft Torque	DISPLACEMENT 12.8 Liters
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DD13 SPECIFICATIONS	
Configuration	Inline 6 Cylinder
Displacement	781 cu. in. (12.8 L)
Compression Ratio	17.3:1
Bore	5.20 in. (132 mm)
Stroke	6.15 in. (156 mm)
Weight (Dry)	2540 lb. (1152 kg)
Electronics	DDEC®
Oil Capacity	40 qt. (38 L)
Horsepower Range	350-470
Torque Range	1250-1650
Rear-Engine Power Take-Off	Optional

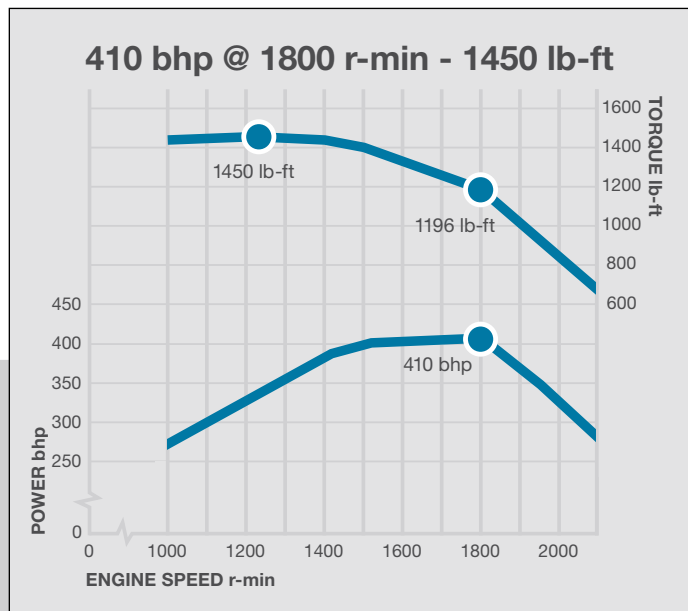


THE DETROIT DD13 OFFERS AN OPTIMAL BLEND OF PERFORMANCE AND EFFICIENCY. IT'S NOT ONLY RIGHT FOR THE JOB, IT'S GREAT FOR YOUR BUSINESS.

Whether you're on the road or at a job site, it's important to operate vehicles that perform efficiently and reliably. That's why the DD13 follows the common base engine design of its successful big brother, the DD15 engine. This engine is everything you need and nothing you don't.

Tailored specifically for LTL, regional distribution and vocational, the DD13 uses the latest in diesel engine technology to create a fuel-saving 12.8-liter workhorse. It's an ideal pairing for a variety of Freightliner and Western Star trucks.

Horsepower and Torque Curve



Power Ratings

DD13 Engine Power Ratings	
350 HP @ 1800 RPM	1350 lb-ft @ 1100 RPM
370 HP @ 1800 RPM	1250 lb-ft @ 1100 RPM
380 HP @ 1800 RPM	1350 lb-ft @ 1100 RPM
380 HP @ 1800 RPM	1450 lb-ft @ 1100 RPM
410 HP @ 1800 RPM	1450 lb-ft @ 1100 RPM
410 HP @ 1800 RPM	1550 lb-ft @ 1100 RPM
410 HP @ 1800 RPM	1650 lb-ft @ 1100 RPM
435 HP @ 1800 RPM	1550 lb-ft @ 1100 RPM
450 HP @ 1800 RPM	1550 lb-ft @ 1100 RPM
450 HP @ 1800 RPM	1650 lb-ft @ 1100 RPM
470 HP @ 1800 RPM	1650 lb-ft @ 1100 RPM
DD13 Engine Multi-Torque Power Ratings	
380 HP @ 1800 RPM	1350/1550 lb-ft @ 1100 RPM
410 HP @ 1800 RPM	1450/1650 lb-ft @ 1100 RPM



TECHNICAL SPECIFICATIONS

FROM 455-505 Horsepower	FROM 1550-1750 lb-ft Torque	DISPLACEMENT 14.8 Liters
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DD15 TC Specifications	
Configuration	Inline 6 Cylinder
Displacement	906 cu. in. (14.8 L)
Compression Ratio	18.4:1
Bore	5.47 in. (139 mm)
Stroke	6.42 in. (163 mm)
Weight (Dry)	2880 lb. (1306 kg)
Electronics	DDEC®
Oil Capacity	45.5 qt. (43 L)
Horsepower Range	455-505
Torque Range	1550-1750

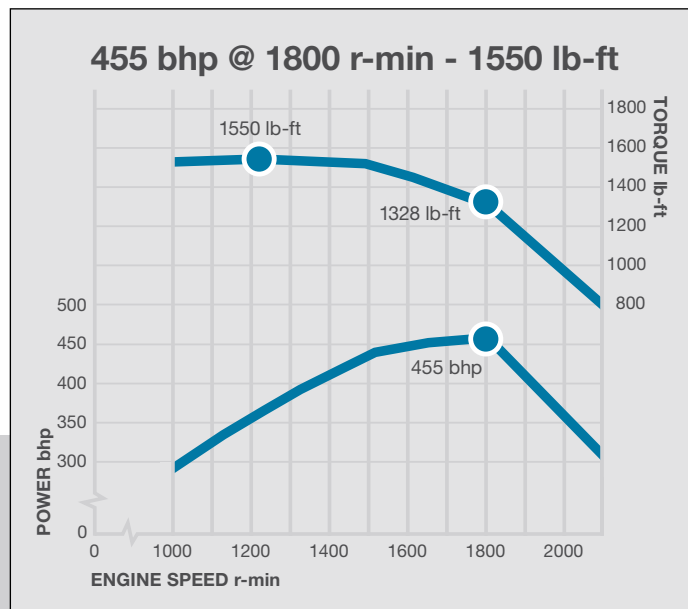


EXPERIENCE THE PROVEN PERFORMANCE AND EFFICIENCY OF THE DETROIT DD15 TC ENGINE.

The Detroit DD15 TC with turbo-compounding puts out up to 505 horsepower with amazing torque response. It uses less fuel without sacrificing power due to the compounding effect. Some of the exhaust heat an engine usually throws away is recovered and turned into productive energy. Less waste can lead to less fuel usage.

This recently updated engine has an improved fuel filter system and enhanced electronics. And the DD15 TC also has the longest service intervals in its class. Less service means lower operating costs.

Horsepower and Torque Curve



Power Ratings

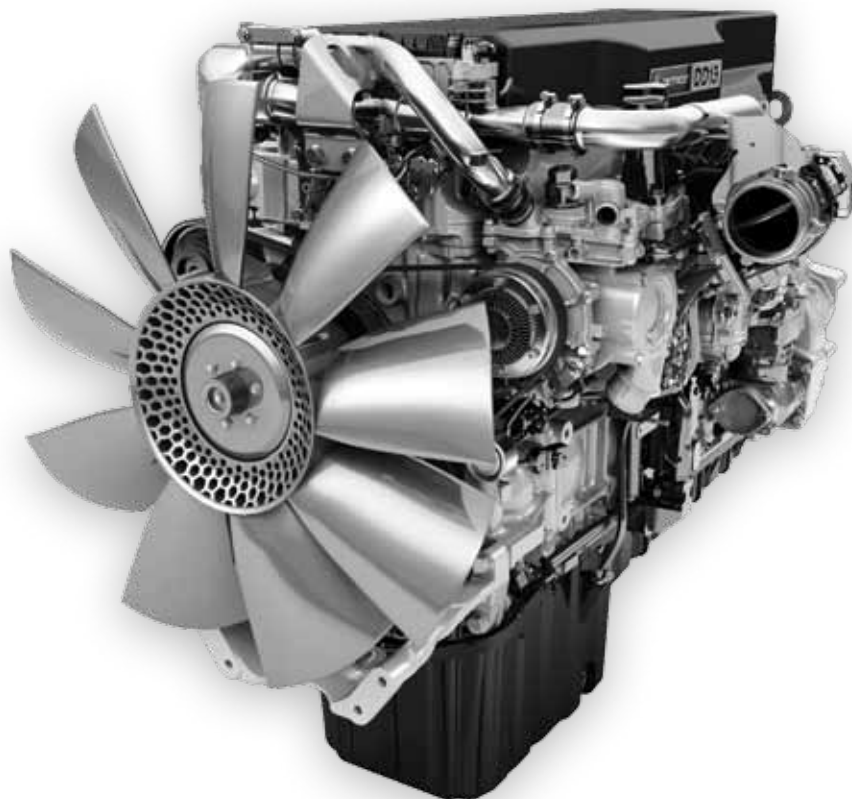
DD15 TC Engine Power Ratings	
455 HP @ 1800 RPM	1550 lb-ft @ 1240 RPM
455 HP @ 1800 RPM	1650 lb-ft @ 1240 RPM
475 HP @ 1800 RPM	1550 lb-ft @ 1240 RPM
475 HP @ 1800 RPM	1650 lb-ft @ 1240 RPM
505 HP @ 1800 RPM	1650 lb-ft @ 1240 RPM
DD15 TC Engine Cruise Power Ratings	
475/505 HP @ 1800 RPM	1650 lb-ft @ 1240 RPM
DD15 TC Engine Multi-Torque Power Ratings	
455 HP @ 1800 RPM	1550/1750 lb-ft @ 1240 RPM
505 HP @ 1800 RPM	1550/1750 lb-ft @ 1240 RPM



TECHNICAL SPECIFICATIONS

FROM 455-505 Horsepower	FROM 1550-1750 lb-ft Torque	DISPLACEMENT 14.8 Liters
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DD15 Specifications	
Configuration	Inline 6 Cylinder
Displacement	906 cu. in. (14.8 L)
Compression Ratio	18.4:1
Bore	5.47 in. (139 mm)
Stroke	6.42 in. (163 mm)
Weight (Dry)	2763 lb. (1254 kg)
Electronics	DDEC®
Oil Capacity	45.5 qt. (43 L)
Horsepower Range	455-505
Torque Range	1550-1750

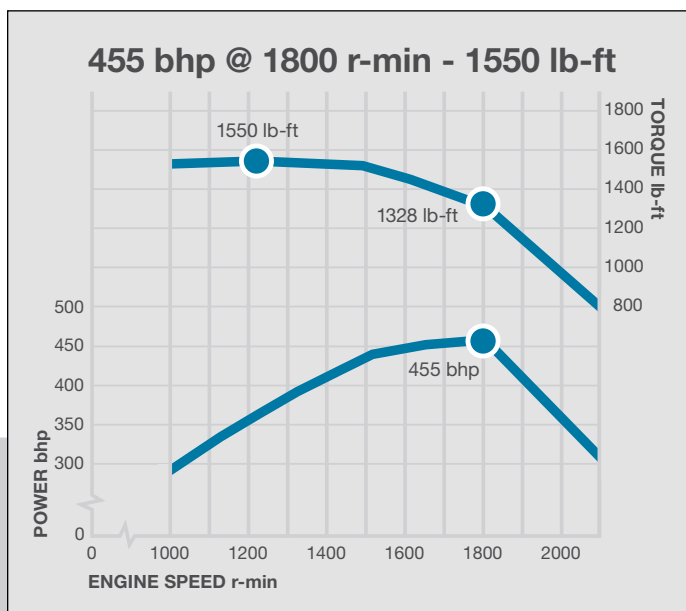


EFFICIENCY HAS EVOLVED. INTRODUCING THE REDESIGNED DETROIT DD15 ENGINE: DEVELOPED SPECIFICALLY FOR THE FREIGHTLINER CASCADIA® EVOLUTION.

Detroit engineers redesigned our successful DD15 engine for the new Freightliner Cascadia Evolution. It's equipped with next-generation ACRS, which enables higher injector pressure and optimized combustion control, delivering the exact amount of fuel you need at the right moment. The variable speed water pump controls coolant flow, based on engine speed and coolant

temperature, reducing load on the engine and improving fuel economy. An optimized piston design reduces friction, while improving both engine performance and durability. The oil pump has also been enhanced. And the DD15 is 100 pounds lighter, compared to our EPA 2010 model.

Horsepower and Torque Curve



Power Ratings

DD15 Engine Power Ratings	
455 HP @ 1800 RPM	1550 lb-ft @ 1240 RPM
455 HP @ 1800 RPM	1650 lb-ft @ 1240 RPM
475 HP @ 1800 RPM	1550 lb-ft @ 1240 RPM
475 HP @ 1800 RPM	1650 lb-ft @ 1240 RPM
505 HP @ 1800 RPM	1650 lb-ft @ 1240 RPM
DD15 Engine Cruise Power Ratings	
475/505 HP @ 1800 RPM	1650 lb-ft @ 1240 RPM
DD15 Engine Multi-Torque Power Ratings	
455 HP @ 1800 RPM	1550/1750 lb-ft @ 1240 RPM
505 HP @ 1800 RPM	1550/1750 lb-ft @ 1240 RPM



TECHNICAL SPECIFICATIONS

FROM 475-600 Horsepower	FROM 1850-2050 lb-ft Torque	DISPLACEMENT 15.6 Liters
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DD16 SPECIFICATIONS	
Configuration	Inline 6 Cylinder
Displacement	952 cu. in. (15.6 L)
Compression Ratio	17:1
Bore	5.47 in. (139mm)
Stroke	6.73 in. (171mm)
Weight (Dry)	2880 lb. (1306 kg)
Electronics	DDEC®
Oil Capacity	45.5 qt. (43 L)
Horsepower Range	475-600
Torque Range	1850-2050

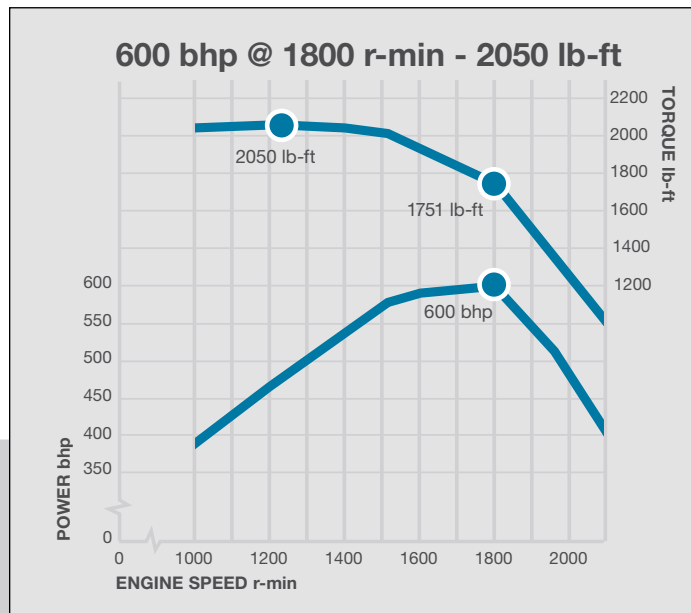


WHEN THE JOB DEMANDS MORE POWER, THE DD16 ENGINE GIVES YOU THE MUSCLE TO HAUL, DUMP, MIX AND MOVE MOUNTAINS.

Big jobs can be brutal. So it just makes sense to let a brute handle them. The Detroit DD16 engine provides as much as 600 horsepower and 2050 pound-feet of torque. The exceptional gradeability and wide, flat torque curve make steep grades and mountainous terrain seem flatter, enabling steady climbs with less

shifting. Innovations such as a ribbed cast iron block, rear gear train, ACRS and integrated Jacobs® engine brake lower in-cab noise and vibration to reduce driver fatigue. With proven reliability, big-bore durability and a B50 life of 1.2 million miles, the DD16 was designed and engineered to last for the long haul.

Horsepower and Torque Curve



Power Ratings

DD16 Engine Power Ratings	
475 HP @ 1800 RPM	1850 lb-ft @ 1100 RPM
500 HP @ 1800 RPM	1850 lb-ft @ 1100 RPM
500 HP @ 1800 RPM	2050 lb-ft @ 1100 RPM
530 HP @ 1800 RPM	1850 lb-ft @ 1100 RPM
560 HP @ 1800 RPM	1850 lb-ft @ 1100 RPM
560 HP @ 1800 RPM	2050 lb-ft @ 1100 RPM
600 HP @ 1800 RPM	1850 lb-ft @ 1100 RPM
600 HP @ 1800 RPM	2050 lb-ft @ 1100 RPM
DD16 Engine Multi-Torque Power Ratings	
500 HP @ 1800 RPM	1850/2050 lb-ft @ 1100 RPM

SERVICEABILITY

GETTING YOUR ENGINE SERVICED QUICKLY AND EASILY CAN MAKE A POSITIVE IMPACT ON YOUR TOTAL COST OF OWNERSHIP.

Detroit engines can go up to 50,000 miles between oil drain, oil filter and fuel filter changes. That's the longest scheduled maintenance interval in its class. And, better yet, it's easy to keep an eye on those important maintenance items like the cartridge style filters that are conveniently located above the frame rails along with the oil fill. This makes it easy to replace the filters when it's time, and gets you back out on the road quickly. Also, the fuel filter module has a new two-filter design for simplified serviceability.

When you need genuine parts and expert service, the Detroit support network will get you back on the road fast. In fact, you have access to our network of authorized service outlets, an award-winning technician training program, an extensive parts distribution network and expert engine support from our technical support center. Detroit combines all this to give you the genuine parts and expert service you need to succeed.

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

Maintenance Intervals

Item	Mi/Hr†	Severe Duty	Short-Haul	Long-Haul
Engine Oil and 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

* Based on 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 regular 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, or seven years/250,000 miles for vocational coverage. 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

**UPTIME IS MONEY. THAT'S WHY
SERVICEABILITY IS ESSENTIAL TO ACHIEVE
A LOWER OVERALL COST OF OWNERSHIP.**



EMPOWERED BY DETROIT

Here at Detroit, we've built our reputation by building high-quality products that perform beyond expectations. Today, you'll find our engines in Freightliner and Western Star trucks on roads and at job sites around the globe.

The secret to our success goes beyond the engines we build. Our people and our continuous pursuit of innovation are powerful driving forces. Our engineering and manufacturing expertise are world class. Our service network is expansive and responsive. That's why we continue to grow and evolve. That's also why we now offer a full line of products: engines, axles, transmissions and advanced technologies. That's right. The company that makes the heart of the truck now gives you the arms, legs and backbone to go with it. So, if you demand it all, demand Detroit.

DEMANDDETROIT.COM