

DETROIT™ DD16® ENGINE

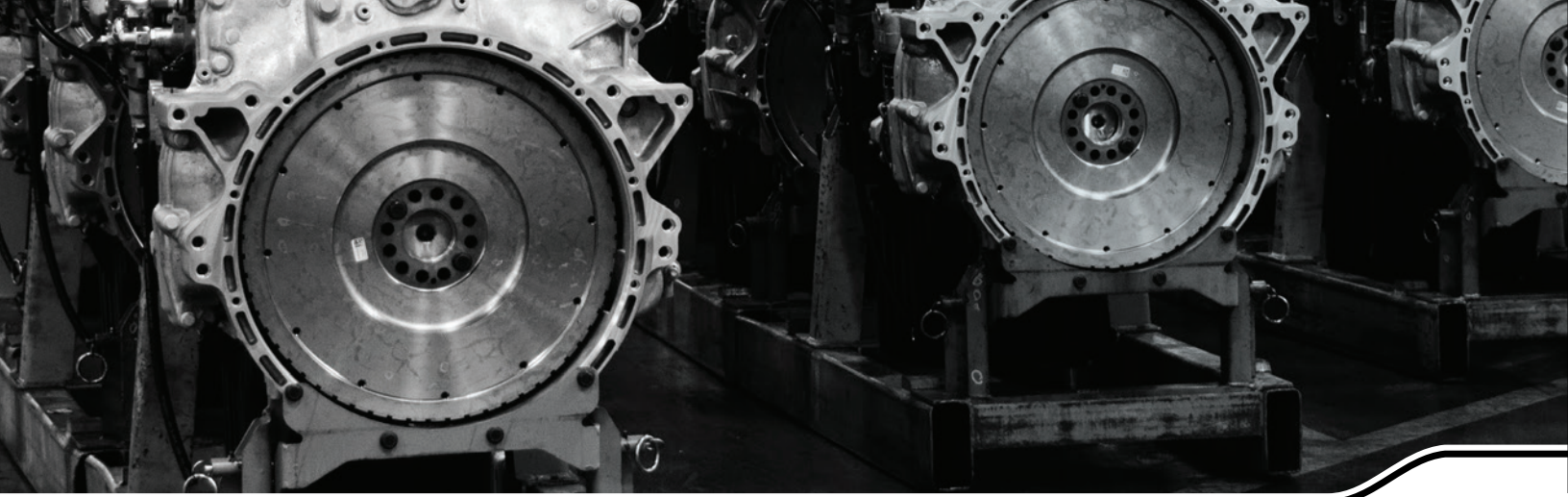
FROM
500-600
Horsepower

FROM
1850-2050
lb-ft Torque

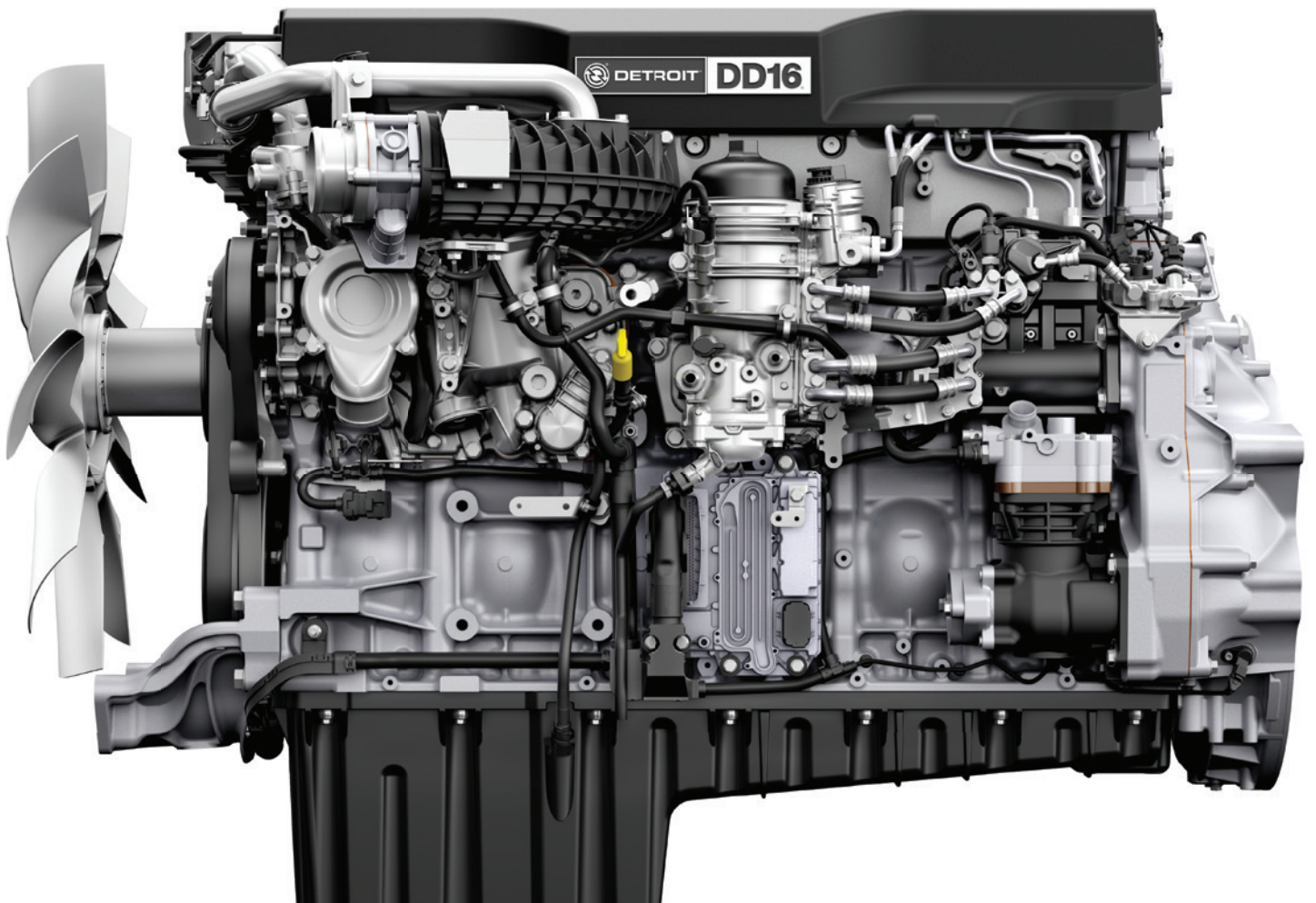
DISPLACEMENT
15.6
Liters



DETROIT™
DEMAND PERFORMANCE™



THE POWER OF EFFICIENCY.





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. Whether you're hauling logs out of the forest, rocks from the quarry or just about anything down the highway, you'll have the power and performance to get the job done. Effectively and efficiently. In fact, the DD16 is equipped with advanced technology to maximize fuel economy. Because, ultimately, it's built to drive your business.

The performance of a Detroit engine is also the result of industry-leading innovation, from the proprietary fuel system to our exhaust aftertreatment process. The DD16 truly offers a total package. And, when you also consider our comprehensive support network, you can operate your business with an added level of confidence. It's no wonder so many people demand Detroit.

PLENTY OF PULLING POWER

The exceptional gradeability and wide, flat torque curve of the powerful DD16 make steep grades and mountainous terrain seem flatter, enabling steady climbs with less shifting.

SILENT, SMOOTH AND COMFORTABLE

Innovations such as a ribbed cast iron block, rear gear train, 2nd Generation Amplified Common Rail Fuel System (ACRS[™]), and integrated Jacobs[®] Engine Brake lower in-cab noise and vibration to reduce driver fatigue.

EFFICIENT TECHNOLOGY

Detroit ACRS, DDEC[®] electronics and our proven emissions technology help the DD16 use less fuel and meet emissions regulations.

KEEP THE WHEELS TURNING

Longest service intervals in its class and cartridge-style filters located above the frame rails ease maintenance, while unmatched parts availability and our best performing network provide peace of mind.

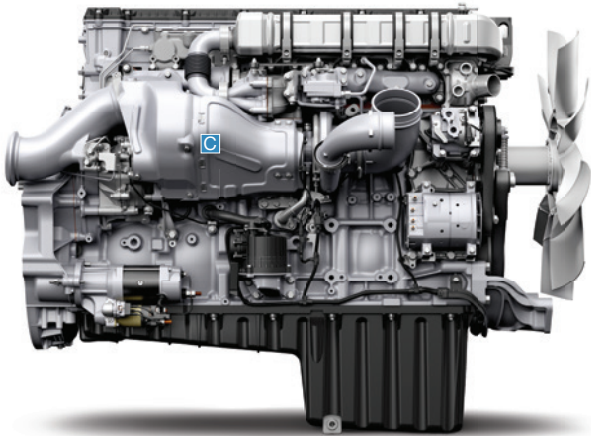
BUILT FOR THE DURATION

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.

**BIG JOBS CAN BE BRUTAL.
SO IT JUST MAKES SENSE TO LET A BRUTE HANDLE THEM.**

ECONOMY

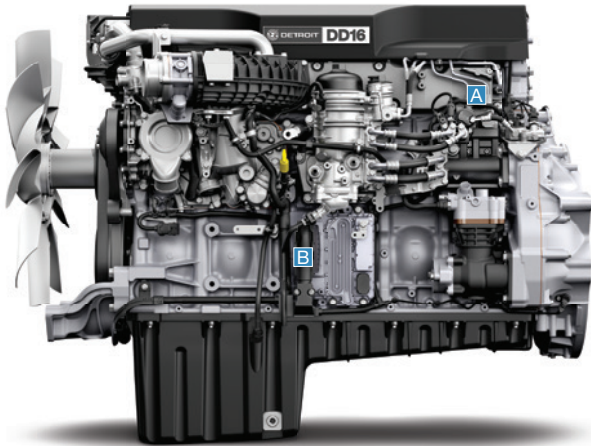
TOUGH ON THE JOB. EASY ON THE BOTTOM LINE. FUEL ECONOMY IS ANOTHER POWERFUL BENEFIT OF THE DD16.



Detroit engines always have been known for legendary fuel economy, and the DD16 is no exception. It's equipped with a variety of innovative technologies designed to save you money at the pump.

MORE POWER. LESS WASTE.

Our exclusive [2nd Generation Amplified Common Rail fuel system, or ACRS \[A\]](#), turbo compounding and proven emissions technology optimize the engine's combustion efficiency, minimizing fuel consumption. ACRS works in unison with our sophisticated [DDEC electronics \[B\]](#) to deliver the exact amount of fuel you need at the right moment, leading to reduced fuel consumption and lower emissions. Plus, DDEC provides a complete offering of engine and driver performance reports to help you maximize the advantages of the DD16. [Turbo compounding \[C\]](#) helps your rig use less fuel without sacrificing power. It recovers thermal energy from the exhaust stream, converting energy normally lost into useable power.



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 engine 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.

Here's what you can expect for typical on-highway tractor-trailer applications of 80,000 lb. or less.

- For maximum fuel economy at typical cruise speeds, gear for an engine speed of 1300 RPM.
- When you need extra performance, gear for an engine speed of 1400 RPM at 65 mph.
- For gearing recommendations specific to heavy-haul or vocational applications, please consult your local Detroit representative.

PERFORMANCE

THE RIGHT COMBINATION OF HORSEPOWER AND TORQUE TO GET THE BIGGEST JOBS DONE.

Choosing an engine is an important business decision. Whatever the job, your vehicles need to be productive to be profitable. That's why we developed the DD16. It provides dependable power for big jobs, while operating as efficiently as possible.

BIG AND STRONG

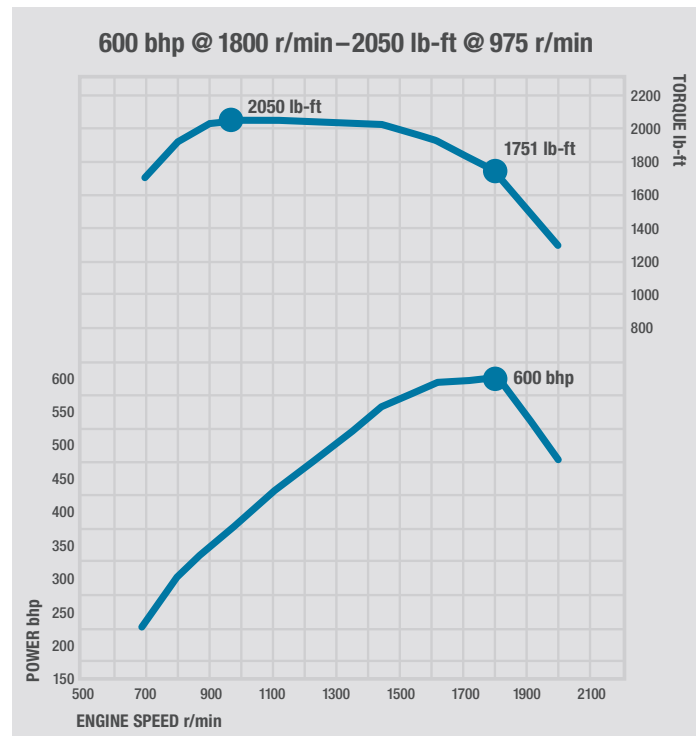
With a displacement of 952 cubic inches (15.6 liters) and up to 600 horsepower, the DD16 is the largest, most powerful engine to ever roll off the Detroit assembly line. So go ahead. Take on even the most challenging jobs with confidence.

Detroit offers an innovative ACRS fuel system that gives the DD16 superior torque response for pulling heavy loads with confidence. With up to 2050 pound-feet of torque, the DD16 delivers the launch and acceleration you need to get the heaviest load moving. And, with a wide, flat torque curve, DD16 lets you hang in top gear longer for more efficient, quieter cruising.

POWER WITH CONTROL

DD16 provides the muscle needed to take on any challenge, but we're not talking about wild, unbridled power here. Because, after all, what good is power without control? That's why every DD16 features an integrated three-stage Jacobs® Engine Brake to deliver better downhill control and quieter, more versatile engine braking.

Horsepower and Torque Curve



DD16 Engine Power Ratings	
500 HP @ 1800 RPM	1850 lb-ft @ 975 RPM
530 HP @ 1800 RPM	1850 lb-ft @ 975 RPM
560 HP @ 1800 RPM	1850 lb-ft @ 975 RPM
560 HP @ 1800 RPM	2050 lb-ft @ 975 RPM
600 HP @ 1800 RPM	1850 lb-ft @ 975 RPM
600 HP @ 1800 RPM	2050 lb-ft @ 975 RPM



DD16 SPECIFICATIONS

Configuration	Inline 6 Cylinder
Displacement	952 cu. in. (15.6 L)
Compression Ratio	17:1
Bore	5.47 in. (139 mm)
Stroke	6.73 in. (171 mm)
Weight (Dry)	2837 lb. (1287 kg)
Electronics	DDEC®
Service Fill (Oil & Filter Change) ..	45 qt. (43 L)
Horsepower Range	500-600
Torque Range	1850-2050 lb-ft

TECHNOLOGY

DETROIT ENGINES ARE ON THE LEADING EDGE OF TECHNOLOGY. AND THAT'S THE BEST WAY TO STAY AHEAD OF EVERYONE ELSE.

VIRTUAL TECHNICIAN

Detroit Connect,TM a suite of proprietary connected vehicle solutions, is designed to improve your bottom line. Detroit Connect provides fleets and owner-operators services and tools to improve uptime, fuel efficiency, safety, and performance. These tools provide them information about their vehicle they can't get anywhere else to better manage their business operations.

The Detroit Connect Virtual TechnicianSM remote diagnostic service 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. Put simply, it's like having a technician in every truck.

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.

COMPLIANCE

The DD16 is compliant with 2017 Greenhouse Gas (GHG17) requirements.



SERVICEABILITY

UPTIME IS ON YOUR SIDE. DETROIT SERVICEABILITY HELPS YOU ACHIEVE A LOWER TOTAL COST OF OWNERSHIP.

As in most businesses, time is money. And this is especially true when it comes to the downtime of your truck. If your rig is in the shop, it's not making you money. That's why you'll appreciate the fact that the DD16 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.

EASE OF MAINTENANCE

The DD16 is engineered to make maintenance quick and easy, so you can get back on the road and keep your cost of ownership in check. Engine subsystems are modularly built to simplify parts replacement and maintenance. All of the routine maintenance items like the cartridge-style filters 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 helps reduce downtime during routine servicing.

When you need genuine parts and expert service, Detroit's support network will get you back on the road fast. Rest assured, you are supported by the Detroit network, including hundreds 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 demand it all.

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.

Maintenance Intervals*

Item	Mi / km / Hr†	Severe Duty	Short-Haul	Long-Haul
Engine Oil and Filter Change**	Miles	35,000	40,000	55,000
	Kilometers	56,000	64,000	89,000
	Hours	750	1000	—
Fuel Filter Change	Miles	35,000	40,000	55,000
	Kilometers	56,000	64,000	89,000
	Hours	750	1000	—
Valve Lash Adjustment	Miles	Adjust at 100,000, at 500,000, and then every 500,000 thereafter.		
	Kilometers	Adjust at 160,000, at 800,000, and then every 800,000 thereafter.		
Diesel Particulate Filter	A check engine light will illuminate when ash requires removal. Normal DPF ash clean interval is:			
	Miles	500,000 to 550,000		
	Kilometers	800,000 to 880,000		
	Hours	11,000 to 11,500		
DEF Pump Filter	Replace filter every 3 years or 500,000 (800,000 km) miles, whichever comes first.			

* Maintenance intervals using Detroit Fluids Specification 93K222 (CK-4) or 93K223 (FA-4) Approved Oils.

** Recommended based on using Detroit's lube oil and oil analysis program.

Severe duty is up to 30,000 annual miles (48,000 kilometers) and a vehicle that averages less than 5 miles per gallon (mpg).

Short-haul is between 30,000 and 60,000 annual miles (48,000-96,000 kilometers) and a vehicle that averages between 5.1 and 5.9 mpg.

Long-haul is over 60,000 annual miles (96,000 kilometers) and a vehicle that averages between 6.0 and 6.9 mpg.

Fuel economy represents overall fuel economy (including idle time).

† Miles/Kilometers or Hours, whichever occurs first..

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



DETROIT GENUINE PARTS

Authorized Detroit service outlets are staffed with 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 will 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
- The ability 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 a subsequent owner, enhancing resale value

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



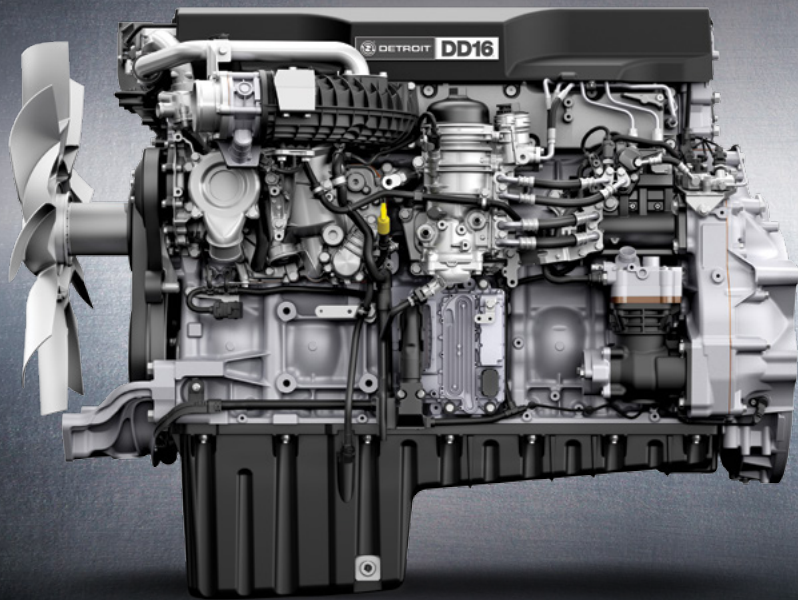
EMPOWERED BY DETROIT

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

DDC-EMC-BRO-0193-0517. Specifications are subject to change without notice. Detroit Diesel Corporation is registered to ISO 9001:2016. Copyright © 2017 Detroit Diesel Corporation. All rights reserved. Detroit™ is a brand of Detroit Diesel Corporation, a Daimler company.



DETROIT[™] DD16[®]

TECHNICAL SPECIFICATIONS

WHEN YOUR RIG NEEDS BIG. THE DETROIT[™] DD16[®] ENGINE DELIVERS STRENGTH AND EFFICIENCY ON THE ROAD OR ON THE JOB SITE.

Detroit offers a big-bore workhorse with up to 600 horsepower and 2050 lb-ft of torque, delivering more efficient and dependable power and performance. Beyond performance, Detroit engineers have been able to meet GHG17 requirements while improving fuel economy.

PERFORMANCE

- The 2nd generation ACRS[™] fuel system, with higher injector pressure, improves performance and fuel economy
 - Precise fuel delivery for extremely quiet, smooth combustion and to meet stringent emissions-control requirements
 - Variable injection patterns for optimal fuel economy across all modes of engine operation
 - Final high-pressure amplification is isolated in the injector, not in the rail or fuel lines, which results in less stress on components
- Exceptional torque response leads to superior launch feel and acceleration
- Outstanding gradeability
 - Flattens steep grades and mountain roads with greater speeds and pulling power
- Turbo-compounding system recovers normally wasted exhaust gases and turns them into usable power without sacrificing fuel economy
- Integrated Jacobs[®] Engine Brake
 - Offers three levels of quieter engine braking for enhanced downhill control
 - Reduces wear on service brakes, tires, and other components

POWER

- 15.6 L displacement is the largest engine built by Detroit
- 600 HP/2050 lb-ft rating available to pull the most extreme loads
- Wide, flat torque curve pulls strong all the way down below 1000 RPM

SERVICEABILITY

- Above the frame rail, cartridge-style filters for easier, faster, and cleaner filter changes
- Unmatched parts availability and expert service at Detroit's best-performing service network
- Big-bore durability and reliability with a 1.2-million-mile B50 life

COMPLIANCE

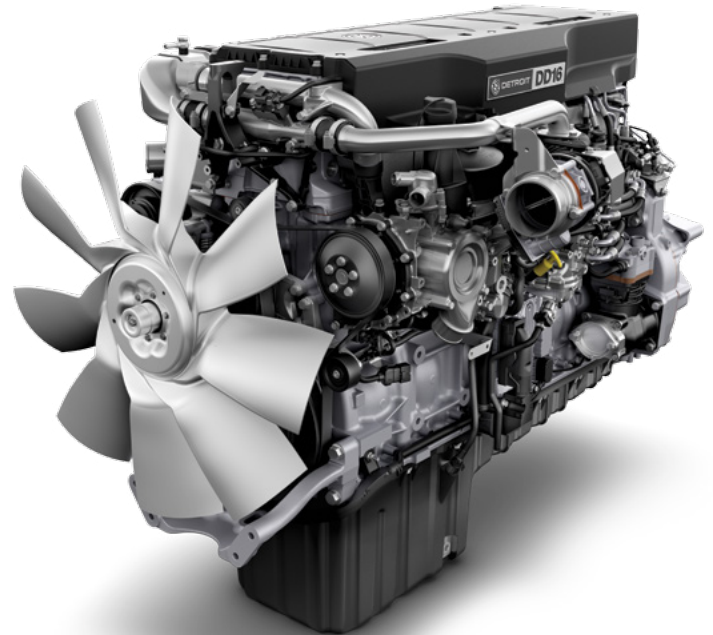
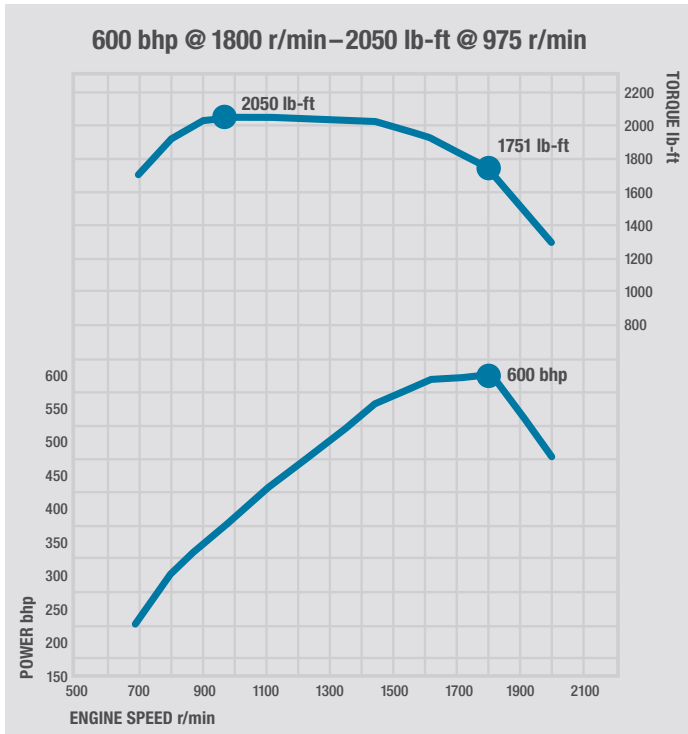
- The DD16 is compliant with 2017 Greenhouse Gas (GHG17) requirements

DD16 SPECIFICATIONS

Configuration	Inline 6 Cylinder
Displacement	952 cu. in. (15.6 L)
Compression Ratio	17:1
Bore	5.47 in. (139 mm)
Stroke	6.73 in. (171 mm)
Weight (Dry)	2837 lb. (1287 kg)
Electronics	DDEC [®]
Service Fill (Oil & Filter Change) ..	.45 qt. (43 L)
Horsepower Range	500-600
Torque Range	1850-2050 lb-ft



Horsepower and Torque Curve



Power Ratings

DD16 Engine Power Ratings	
500 HP @ 1800 RPM	1850 lb-ft @ 975 RPM
530 HP @ 1800 RPM	1850 lb-ft @ 975 RPM
560 HP @ 1800 RPM	1850 lb-ft @ 975 RPM
560 HP @ 1800 RPM	2050 lb-ft @ 975 RPM
600 HP @ 1800 RPM	1850 lb-ft @ 975 RPM
600 HP @ 1800 RPM	2050 lb-ft @ 975 RPM

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 / km / Hr†	Severe Duty	Short-Haul	Long-Haul
Engine Oil and Filter Change**	Miles	35,000	40,000	55,000
	Kilometers	56,000	64,000	89,000
	Hours	750	1000	—
Fuel Filter Change	Miles	35,000	40,000	55,000
	Kilometers	56,000	64,000	89,000
	Hours	750	1000	—
Valve Lash Adjustment	Miles	Adjust at 100,000, at 500,000, and then every 500,000 thereafter.		
	Kilometers	Adjust at 160,000, at 800,000, and then every 800,000 thereafter.		
Diesel Particulate Filter	A check engine light will illuminate when ash requires removal. Normal DPF ash clean interval is:			
	Miles	500,000 to 550,000		
	Kilometers	800,000 to 880,000		
	Hours	11,000 to 11,500		
DEF Pump Filter	Replace filter every 3 years or 500,000 (800,000 km) miles, whichever comes first.			

* Maintenance intervals using Detroit Fluids Specification 93K222 (CK-4) or 93K223 (FA-4) Approved Oils.
 ** Recommended based on using Detroit's lube oil and oil analysis program.
 Severe duty is up to 30,000 annual miles (48,000 kilometers) and a vehicle that averages less than 5 miles per gallon (mpg). Short-haul is between 30,000 and 60,000 annual miles (48,000-96,000 kilometers) and a vehicle that averages between 5.1 and 5.9 mpg. Long-haul is over 60,000 annual miles (96,000 kilometers) and a vehicle that averages between 6.0 and 6.9 mpg. Fuel economy represents overall fuel economy (including idle time).
 † Miles/Kilometers or Hours, whichever occurs first.

1-800-445-1980 • DEMANDETROIT.COM

