

DETROITTM DD15[®] ENGINE

FROM
455-505
Horsepower

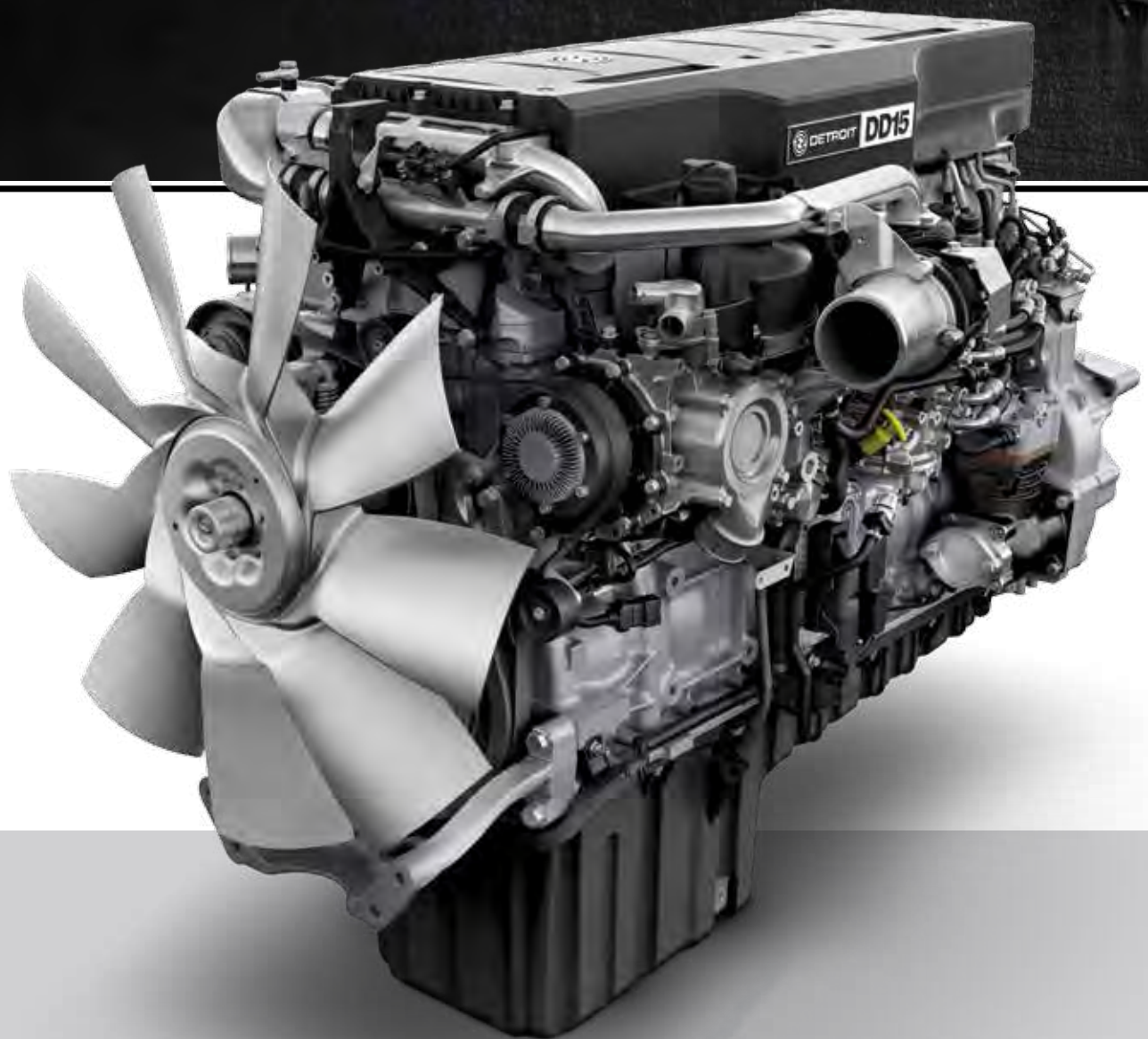
FROM
1550-1750
lb-ft Torque

DISPLACEMENT
14.8
Liters



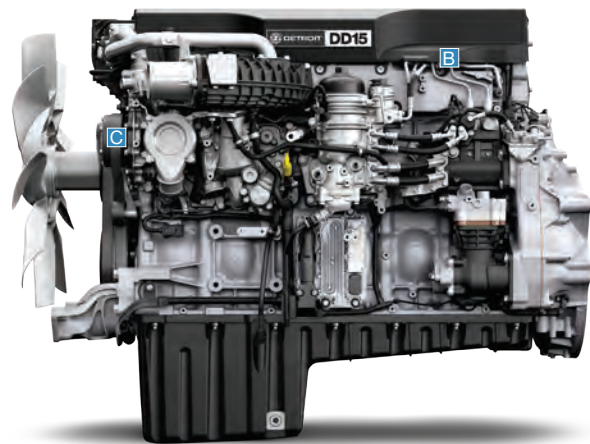
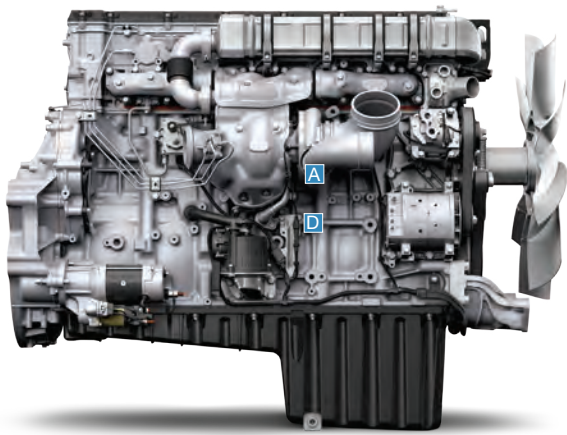
DETROITTM
DEMAND PERFORMANCE[™]

EFFICIENCY HAS **EVOLVED**



ECONOMY

PUT LESS IN THE TANK AND MORE IN THE BANK. THE DD15 ENGINE WAS ENGINEERED TO INCLUDE A VARIETY OF FEATURES THAT ENHANCE FUEL ECONOMY.



A [proprietary asymmetric turbocharger \[A\]](#) is optimally matched to the exhaust gas recirculation (EGR) system for significant improvements in real-world fuel economy, without sacrificing any of the performance you've come to expect from the DD15. We've also streamlined the design of the turbocharger for reduced weight and even greater efficiency and reliability.

The engine is equipped with the [2nd Generation Amplified Common Rail Fuel System \(ACRS\) \[B\]](#), which enables higher injector pressure and optimized combustion control, delivering the exact amount of fuel you need at the right moment. The ACRS contributes to improved throttle response, while also helping reduce emissions and engine noise.

A [variable-speed water pump \[C\]](#) controls the pump flow, based on engine speed and coolant temperature. It utilizes a viscous clutch between the pulley and the impeller drive to reduce impeller speeds, making it more efficient than gear-driven designs. The result is reduced load on the engine and improved fuel economy.

Precise details can also make a big difference. That's why Detroit engineers seized the opportunity to incorporate other improvements, such as an [optimized piston design \[D\]](#) that reduces friction while improving both engine performance and durability. Even the EGR System has been enhanced to improve control of emissions and performance.

OPTIMIZED DRIVETRAIN EFFICIENCY

When it comes to maximizing the return on your Detroit-powered drivetrain, vehicle gearing is an important thing to consider. 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.



DD15 Specifications

Configuration	Inline 6 Cylinder
Displacement	906 cu in (14.8 L)
Compression Ratio	18.5:1
Bore	5.47 in (139 mm)
Stroke.....	6.42 in (163 mm)
Weight (Dry)	2718 lb (1233 kg)
Electronics	DDEC®
Service Fill (Oil & Filter Change) ..	45 qt (43 L)
Horsepower Range	455-505
Torque Range	1550-1750

TECHNOLOGY

THE BEST ENGINES HAVE THE BEST TECHNOLOGY.
DETROIT INNOVATION BENEFITS OUR CUSTOMERS
AND LEADS THE INDUSTRY FORWARD.

VIRTUAL TECHNICIAN

Detroit Connect, 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 Technician™ integrated remote 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. 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 technology to better control speed, assist in passing, optimize idle efficiency and even reward your drivers for reaching fuel economy targets. With DDEC, there are also 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 DD15 is compliant with 2017 Greenhouse Gas (GHG17) requirements.

PERFORMANCE

THIS ENGINE CAN HAUL, CLIMB, PULL AND PASS. WITH THE DD15, WE'VE ACHIEVED AN OPTIMAL TORQUE RANGE TO ENABLE CONTINUOUS PERFORMANCE. NO MATTER THE LOAD OR THE TERRAIN.

Torque response is the key to performance. The DD15 has excellent low-end torque, thanks to a flat, ultra-wide torque curve. Whether you're driving up an incline, merging onto the highway or passing slower traffic, the DD15 engine provides the power you need, quickly and efficiently.

This is achieved by the ACRS fuel system working in unison with our updated DDEC® electronic engine controls to create the optimal combustion event at just the right moment.

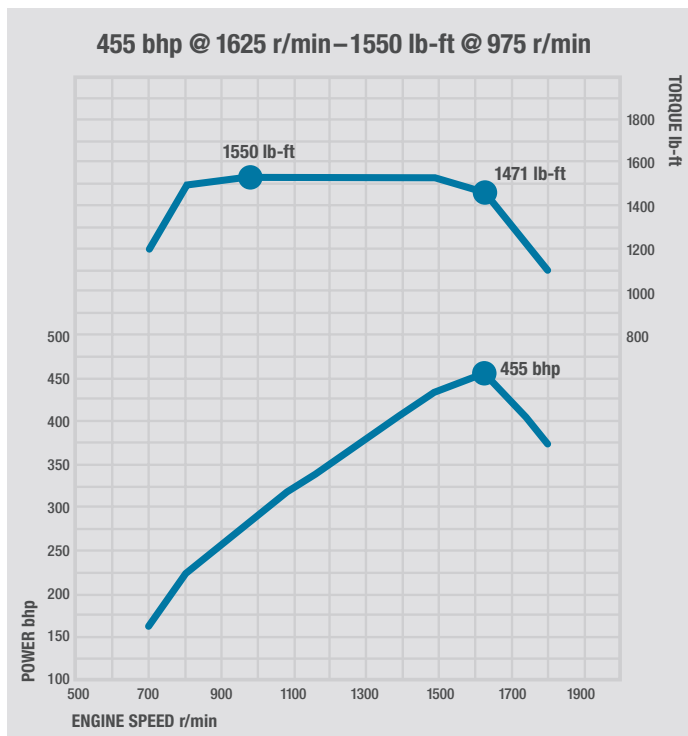
Also, the combination of low inertia, dual overhead camshafts and the asymmetric turbocharger allows for faster acceleration. The overall effect is a smoother driving experience with less shifting involved.

QUIET BRAKING

Along with uncompromising power, your DD15 also is equipped with an integrated Jacobs® Engine Brake that will slow you down safely when you need it. So, when you're cruising through small towns where everyone's asleep, go ahead and turn it on. No one will hear it. And, with three levels of braking, you've got a wide range of braking power. Get down hills safer and with more control.

DD15 Engine Power Ratings	
455 HP @ 1625 RPM	1550 lb-ft @ 975 RPM
455 HP @ 1625 RPM	1650 lb-ft @ 975 RPM
475 HP @ 1625 RPM	1650 lb-ft @ 975 RPM
505 HP @ 1625 RPM	1650 lb-ft @ 975 RPM
505 HP @ 1625 RPM	1750 lb-ft @ 975 RPM
DD15 Engine Cruise Power Ratings	
475/505 HP @ 1625 RPM	1650 lb-ft @ 975 RPM
DD15 Engine Multi-Torque Power Ratings	
455 HP @ 1625 RPM	1550/1750 lb-ft @ 975 RPM

Horsepower and Torque Curve



SERVICEABILITY

THE DD15 IS ENGINEERED TO MAKE MAINTENANCE QUICK AND EASY, SO YOU CAN GET BACK ON THE ROAD AND KEEP COSTS IN CHECK.

Backed by proven durability, the DD15 features engineering innovations designed to optimize performance and simplify maintenance, keeping your truck running at the top of its game.

Engine subsystems are modularly built to simplify part replacement and maintenance. This reduces downtime during routine servicing. And less routine servicing is required, because the DD15 was built for longer service intervals.

Changing your oil is faster, too. All the filters on the DD15 are located above the frame rails and are cartridge-style for easy replacement.

For times when you need genuine parts and expert service, the Detroit support network will get you back on the road fast. In fact, you are supported by hundreds of authorized service outlets, an award-winning technician training program, an extensive parts distribution network and expert engine support from our Customer Support Center.

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

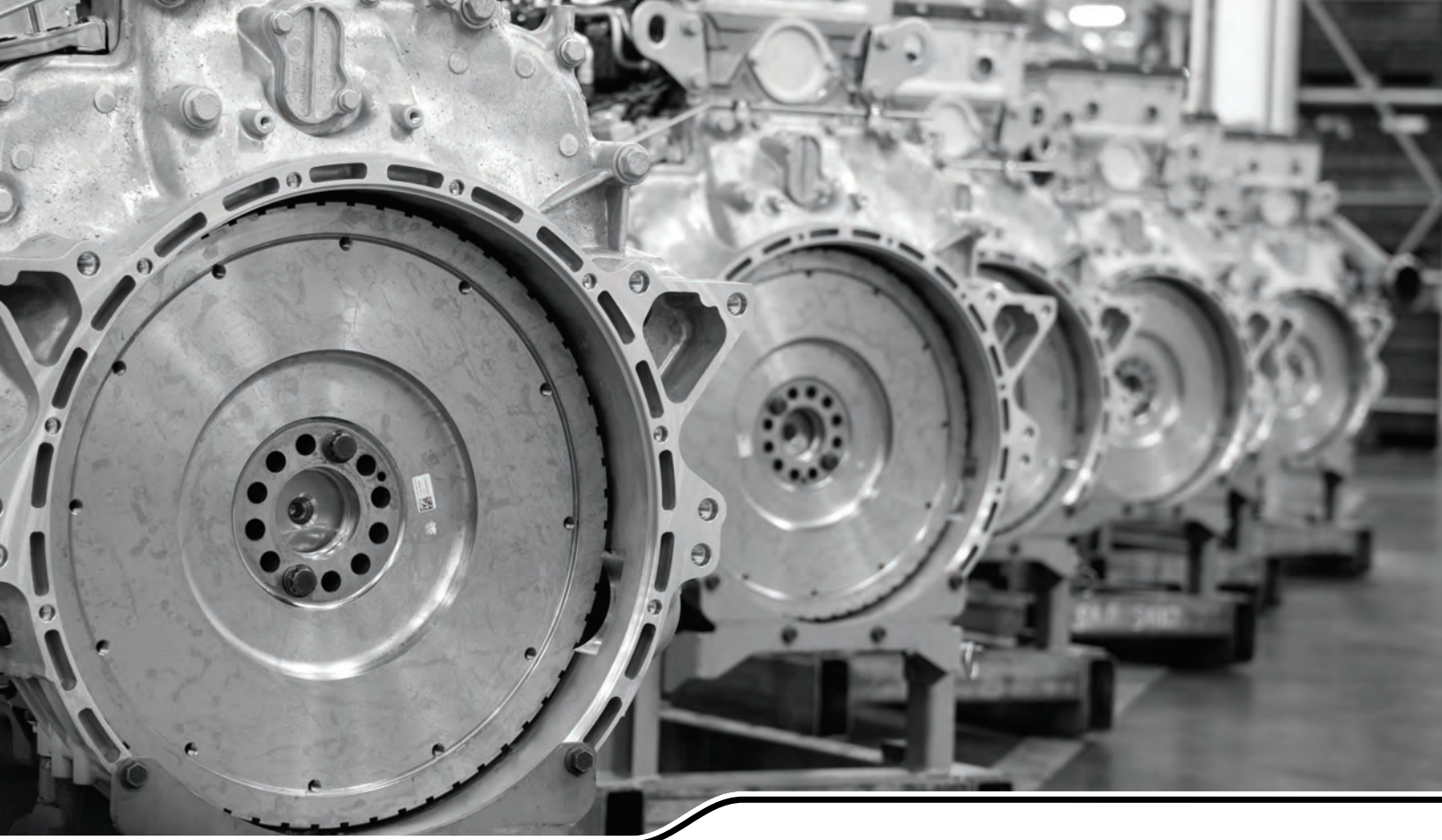
Item	Warranty Limits (Whichever Occurs First)		Repair Charge (Paid by Owner)	
	Months	Miles / Kilometers	Parts	Labor
Engine	0-24	Unlimited	No charge	No charge
Injectors	0-24	200,000 mi 320,000 km	No charge	No charge
Upon expiration of the 24-month warranty coverage, but within 500,000 mi/800,000 km of 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 / km / Hr†	Severe Duty	Short-Haul	Long-Haul
Engine Oil and Filter Change*	Miles	25,000	35,000	50,000
	Kilometers	40,000	55,000	80,000
	Hours	640	895	1,280
Fuel Filter Change	Miles	25,000	35,000	50,000
	Kilometers	40,000	55,000	80,000
	Hours	640	895	1,280
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			
	Miles	390,000	400,000 to 500,000	500,000 to 550,000
	Kilometers	627,000	640,000 to 800,000	800,000 to 880,000
	Hours	10,000	10,250 to 11,000	11,000 to 11,500
DEF Pump Filter	Replace filter every 3 years or 500,000 (800,000 km) miles, whichever comes first.			

* Recommended based on using Detroit's 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.



THE DETROIT™ DD15® ENGINE

DEVELOPED SPECIFICALLY FOR OPTIMUM FUEL ECONOMY

The focus of Detroit engineers is to achieve the most effective combination of performance and fuel economy. Their goal is to design and build engines that enable customers to operate their fleets more efficiently and ultimately to provide a lower Real Cost of Ownership.SM

That's why the DD15 engine continues to evolve. Our engine technology and enhancements offer an unprecedented level of efficiency. The future of trucking has definitely arrived.

The DD15 incorporates a variety of innovations. A patented asymmetric turbocharger reduces complexity and weight while enhancing performance. An updated piston design improves both efficiency and durability. The 2nd Generation Amplified Common Rail Fuel System (ACRS™), a variable-speed water pump and optimized oil pump help maximize fuel economy. And the DD15 meets GHG17 certification and compliance.

**OUR ENGINE TECHNOLOGY AND
ENHANCEMENTS OFFER AN UNPRECEDENTED
LEVEL OF FUEL EFFICIENCY.**



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
- 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 REAL 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.

DEMAND**DETROIT**.COM

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