

DETROIT[™] DD15[®] ENGINE

BDC for Manuals - specs - Bolt torques
<https://barringtondieselclub.co.za/>

FROM
455-560
Horsepower

FROM
1550-1850
lb-ft Torque

DISPLACEMENT
14.8
Liters



DETROIT[™]
DEMAND PERFORMANCE[™]

AN ATTITUDE ALL ITS OWN

IMAGINE THIS. YOU'RE LEAVING GRAND ISLAND FOR SALT LAKE WITH 78,000 POUNDS AND A TIGHT SCHEDULE ON YOUR SHOULDERS. OUT OF THE LOT, YOU TAP THE PEDAL AND INSTANTLY YOU'RE OFF. NO LAG.

The interstate is cluttered with RVs heading out for the weekend, but you pass them like they're roadside pebbles. And you do it smoothly, with little fuss. Now here come those hills. Funny, they seem less steep than you remember.

The smooth, steady hum of a powerful engine is nice to your ear, not deafening. The vibrations and shaking are gone. The only thing you really feel is the power of the engine pulling you along – it's like you have torque in your back pocket.

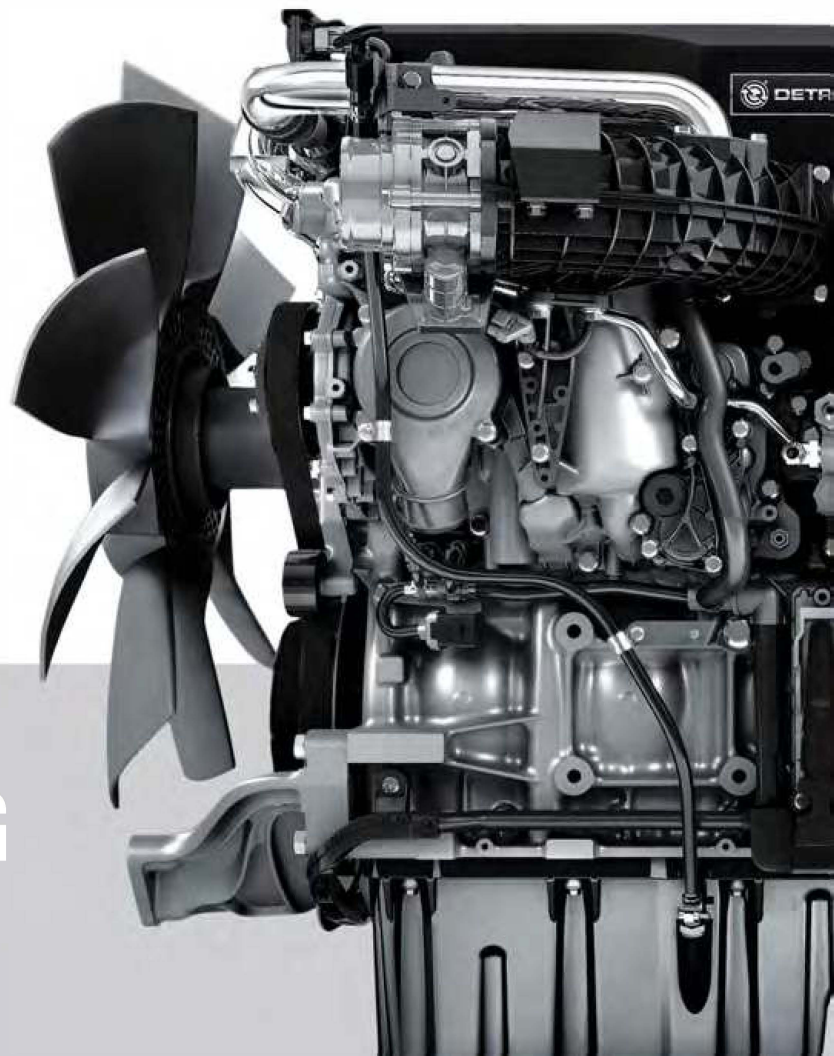
And on the downside of those mountains, there's another surprise: a quiet, more powerful Jake. It keeps you running silent in those small towns you need to pass through.

This run's been a cakewalk.

But you aren't dreaming. You're driving a DD15® engine with BlueTec® emissions technology.

**“SO QUIET
IT'S LIKE DRIVING
A LUXURY CAR”**

– JAMES SMITH, Fleet Driver, Tennessee

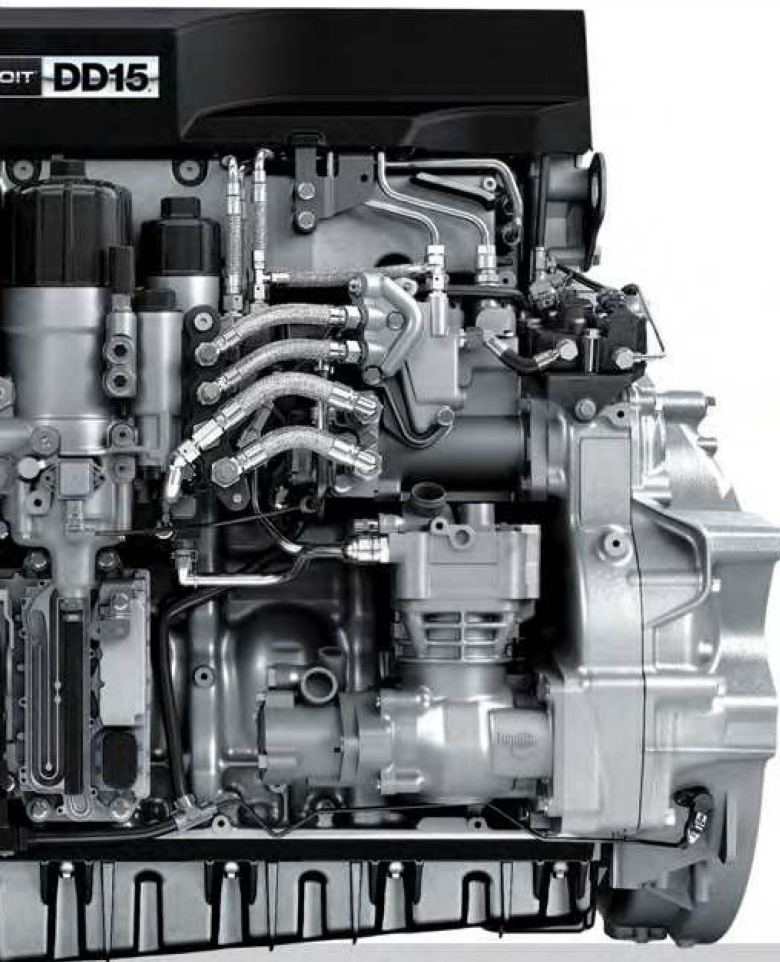


BETTER ECONOMY

DID YOU THINK BIG POWER CAME WITH A BIG PRICE?

That used to be the case. Now, with turbo compounding technology, you'll actually save money. The turbo compounding system uses less fuel without sacrificing power, making it the perfect solution for the inconvenient reality of climbing fuel prices.

This is due to the compounding effect of a turbine wheel that turns hot flowing exhaust into energy. Some of the exhaust heat your engine usually throws away is recovered and turned back into productive energy. So you're wasting less and using more, leaving you with a smaller fuel bill. But the truly amazing part: turbo compounding also delivers up to 50 "bonus" horsepower. Can you really say no?



Also working to maximize your fuel efficiency is the advanced combustion management of the DD15. The ACRS™ (Amplified Common Rail System) optimizes the injection process while DDEC® 10 electronic engine controls adjust to driving conditions and driver commands instantly.

Another factor contributing to the impressive fuel economy of the DD15 is BlueTec emissions technology. BlueTec was designed to allow the DD15 to perform at its peak. By treating exhaust gases outside of the engine and using less EGR, an EPA 2010 DD15 can provide up to 5% better fuel economy compared to our impressive DD15 EPA 2007. One of the major factors contributing to this improvement is that BlueTec emissions technology allows for extended regeneration intervals.

GEARED FOR YOU.

You have expectations. And with a drivetrain that's properly optimized to fit the application, the DD15 helps you meet them. For example, vehicle gearing is another important factor in the fuel economy equation. Here's what you can expect for typical on-highway tractor-trailer applications of 80,000 lb. or less.

- For maximum fuel economy at 65 mph, gear for an engine speed of 1375 RPM.
- When you need extra performance, gear for an engine speed of 1475 RPM at 65 mph.
- For gearing recommendations specific to vocational applications, please visit your local Detroit dealer.

When you are ready to spec your DD15, make sure you 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 access to the Detroit Spec Manager tool, we'll analyze your specifications and make sure that all performance and economy needs are met. And then some.

PERFORMANCE

TORQUE RESPONSE. THE DD15 DELIVERS WHAT YOU NEED, WHEN YOU NEED IT, IN A WAY THAT YOU'VE NEVER EXPERIENCED BEFORE.

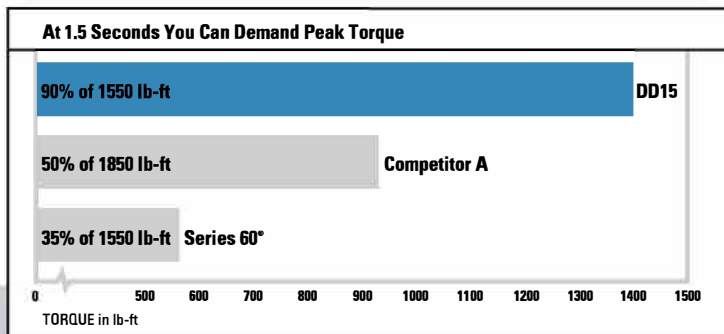
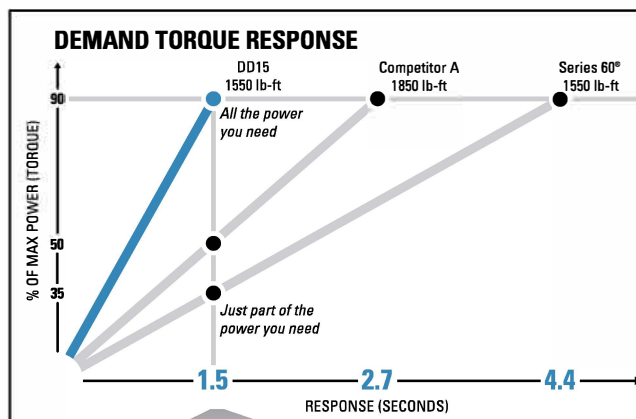
It's called torque response. And it gives you the get up and go you need to conquer hills, pass when you want and deliver your load on time. And it all happens with more power, less fuel and better performance than ever before.

The DD15 will change the way you drive. Climbing hills can be tough: You keep your foot on the pedal and your hand on the shifter. With the DD15, instant gratification is the name of the game. That's because the DD15 delivers 90% peak torque in 1.5 seconds. Other engines take up to 4.4 seconds. That means in 1.5 seconds other engines reach only half their power while the DD15 gives you all the power you demand. (See "Demand Torque Response" chart.) Here's how:

- The breakthrough innovation called ACRS
- A simple and reliable pre-EPA '98 non-wastegated and non-variable geometry-style turbocharger
- Low inertia, dual overhead camshafts

The ACRS works in unison with our DDEC 10 electronic engine controls to deliver the exact amount of fuel you need at just the right moment, creating the most optimal combustion event. The DD15's extremely high compression ratio of 18.4:1 produces more cylinder pressure than other designs. This means greater power and faster torque response than ever before.

Meanwhile, the compact turbocharger and the hollowed-out dual overhead camshafts work together to allow them to rev up quicker and accelerate your truck faster than any Detroit in the past. That's the magic behind the DD15's incredible torque response. DD15 with BlueTec is in a performance category all its own.



**“RESPONSE AND PICKUP
OF THIS ENGINE IS INCREDIBLE.”**

– DALE LEMMONS, Fleet Owner, Washington



LOW COST OF OWNERSHIP

The DD15 is engineered to make maintenance quick and easy so you can get back on the road and keep cost of ownership in check. Engine sub-systems are modularly built to simplify parts replacement and maintenance. This reduces downtime during routine servicing. And there is less routine servicing because the DD15 was built for longer service intervals.

Plus, changing your oil just got faster: All the filters of the DD15 are located above the frame rails and are cartridge-style for easy replacement. So the DD15 not only starts out as a great performing engine, it's engineered to stay that way.

For those times when you need genuine parts and expert service, Detroit's support network will get you back on the road fast.

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 then every 500,000 thereafter.		
	Hours	Adjust at 2,565, at 12,825 and then 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 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.

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

You are supported by the network: 800-plus 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.

And if all that is not enough, DDEC 10 provides a complete offering of engine and driver performance reports to help you maximize the DD15 advantages.

QUIET BRAKING

Along with uncompromising torque, you're also equipped with an integrated Jacobs® Engine Brake that fully assists you when you need it. Now you can maintain your desired speed on hills with little sound or bone-shaking jolts. 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. The Jake Brake is also lighter in weight than competitive designs.

**"VERY LITTLE
ENGINE NOISE.
YOU CAN'T EVEN
HEAR THE JAKE
BRAKE."**

– MITCHELL RAY, Fleet Driver, Wyoming

THE DD15 COMES WITH A THOROUGH WARRANTY PLAN AND IS DESIGNED FOR A B50 LIFE OF 1.2 MILLION MILES.

Detroit also offers extended warranty options for the DD15. Please see your local sales outlet for details.

MORE POWER

MORE PULLING, LESS SHIFTING. TORQUE RANGE IS HOW LONG YOUR ENGINE CAN PERFORM AT NEAR-PEAK TORQUE LEVELS, AND IT'S CRITICAL. WITH THE DD15, YOU GET AN EXTREMELY WIDE RANGE, BUT IT ALSO GOES EXTREMELY LOW, DOWN TO 1000 RPM.

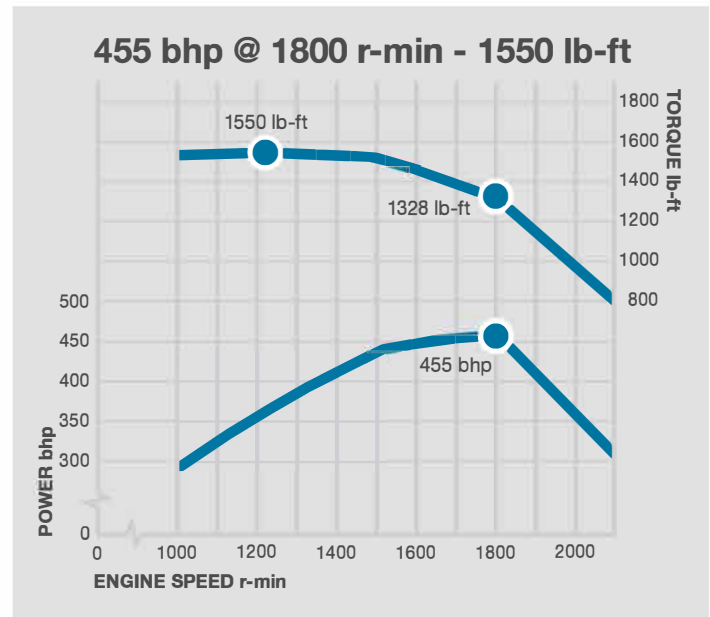
With this unbelievable powerband, low-end torque and less shifting, you've got all the tools to do your job better, faster and easier.

Flatten grades. Lighten loads. The DD15 pulls stronger so you can pull the biggest hill or heaviest load with zero worries. You can thank unprecedented low-end torque for that. And with an ultra-wide, flat torque curve, there's less shifting involved.

To state it in real time: At just over 1000 RPM, you're cranking with 90% of peak torque to turn your fastest gears effectively and efficiently. Because once you hit those hills, you're not slowing down, and you're not shifting as much.

The immediate response is what it's all about. And we figure, heck, the world is all about instant gratification. Why shouldn't you have yours? And the nice thing is the broader power range comes without extra costs. It doesn't eat up your engine. It doesn't send you to the shop. And it doesn't make you worry about the drive back.

Horsepower and Torque Curve



DD15 ENGINE POWER RATINGS	
455 HP @ 1800 RPM	1550 lb-ft @ 1100 RPM
455 HP @ 1800 RPM	1650 lb-ft @ 1100 RPM
475 HP @ 1800 RPM	1650 lb-ft @ 1100 RPM
505 HP @ 1800 RPM	1650 lb-ft @ 1100 RPM
475 HP @ 1800 RPM	1850 lb-ft @ 1100 RPM
500 HP @ 1800 RPM	1850 lb-ft @ 1100 RPM
530 HP @ 1800 RPM	1850 lb-ft @ 1100 RPM
560 HP @ 1800 RPM	1850 lb-ft @ 1100 RPM

DD15 ENGINE CRUISE POWER RATINGS	
455/475 HP @ 1800 RPM	1550 lb-ft @ 1100 RPM
475/505 HP @ 1800 RPM	1650 lb-ft @ 1100 RPM

DD15 ENGINE MULTI-TORQUE POWER RATINGS	
455 HP @ 1800 RPM	1550/1750 lb-ft @ 1100 RPM
475 HP @ 1800 RPM	1650/1850 lb-ft @ 1100 RPM

“ACCELERATES LIKE AN EMPTY TRUCK.”

— RON MCCLAIN, Fleet Driver, Florida

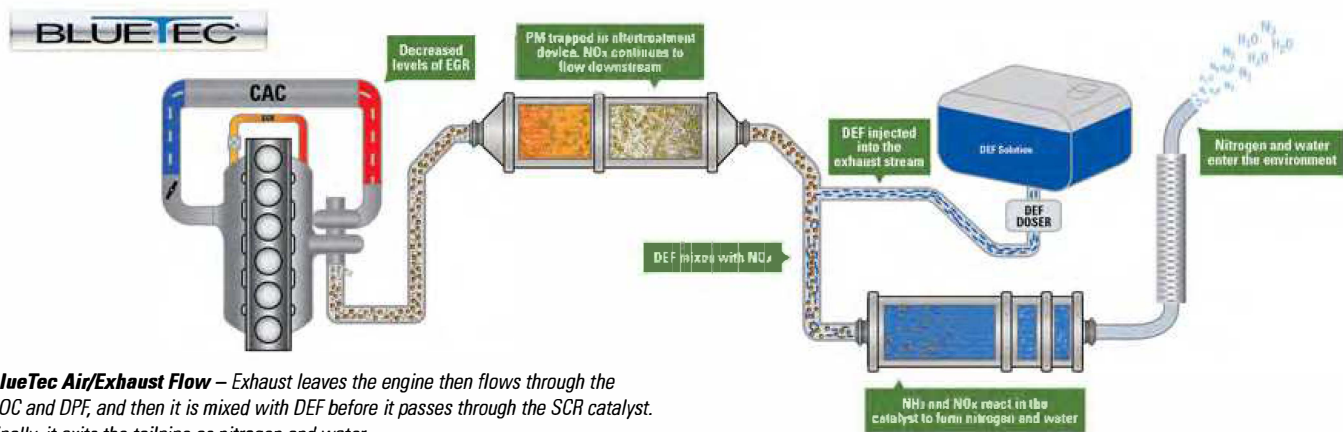
TECHNOLOGY

DD15: WITH BLUETEC EMISSIONS TECHNOLOGY.

How BlueTec Emissions Technology Works

BlueTec is a complete emissions system that combines exhaust gas recirculation (EGR), diesel particulate filter (DPF), diesel oxidation catalyst (DOC) and selective catalytic reduction (SCR) to efficiently meet the EPA 2010 emissions standards. BlueTec treats the exhaust gases downstream of the engine instead of requiring complex

changes under the hood. It does this by injecting a small amount of diesel exhaust fluid (DEF) into the exhaust stream which reacts with the NOx in the SCR catalyst, forming nitrogen and water. Lastly, the nitrogen and water, safe elements in the air we breathe, are released into the environment.



BlueTec Air/Exhaust Flow – Exhaust leaves the engine then flows through the DOC and DPF, and then it is mixed with DEF before it passes through the SCR catalyst. Finally, it exits the tailpipe as nitrogen and water.

DDEC

Detroit Diesel Electronic Controls (DDEC) is a suite of innovative features that enable you to better manage fuel economy, engine performance, driving efficiency and maintenance. In addition to our Virtual Technician onboard diagnostic system, 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, you can maximize efficiency, and profitability

VIRTUAL TECHNICIAN

Virtual Technician is a factory-installed onboard diagnostic system that puts you in control of your business 24/7. When a truck's check engine light illuminates, data is immediately collected, providing a technical snapshot of the engine's status before, during and after a fault code event. This information is sent to you and our Customer Support Center, where a trained representative can diagnose the issue, recommend service and even contact the nearest authorized locations with parts in stock. Additionally, Virtual Technician's optional Visibility Package offers access to the Ground Traffic Control website.

1-BOX™

Only available with Detroit's
BlueTec Emissions Technology

1-Box™ Emissions Package:

- Combines DOC, DPF, SCR catalyst, DEF doser in the same package
- Enables lower exhaust back pressure for better fuel economy
- Enables optimal packaging solutions for truck configurations

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

This groundbreaking system captures latitude, longitude, time and odometer readings. With pinpoint accuracy, the system records vehicle stops, speeds, routes traveled, mileage by state, excessive idling, fuel consumption and other on-board events. Put simply, Virtual Technician takes the guesswork out of engine repair, helping you to manage your business more efficiently.

DETROIT SUPPORT. ANYWHERE.

- Unmatched parts availability
- Factory-certified technicians
- Live technical support
- More than 800 authorized service outlets in North America

