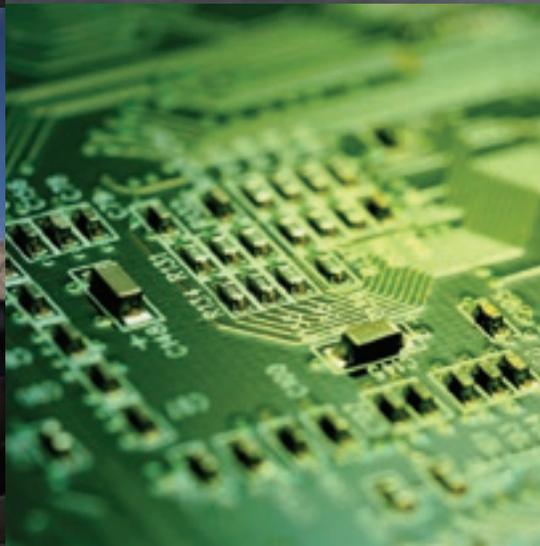
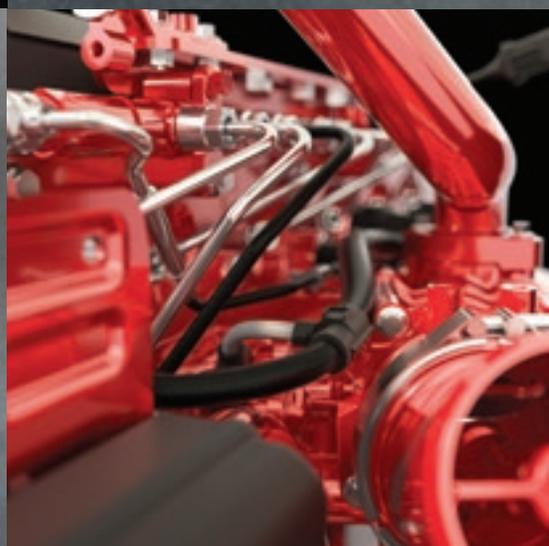




400-500 HP / 1450-1850 LB-FT TORQUE



X15  
EFFICIENCY  
SERIES





**IT ALL STARTS WITH DEPENDABILITY.**

**THE POWER OF CHOICE:  
DIRECT DRIVE AND OVERDRIVE.**

X15 SmartAdvantage™ Powertrain  
small-step overdrive and direct drive  
options make this the most fuel-efficient  
powertrain you can buy.

**SmartAdvantage™ Powertrain**



Cummins redefined efficiency and reliability at the 1931 Indianapolis 500,<sup>®</sup> with the only car in the history of the race to complete the full 500 miles without stopping, using only \$1.40 in fuel.

**A**t Cummins, dependability goes beyond engine performance or a response to a service event. It means being able to count on us to do what we say we will do. Dependability means you don't have to worry. We ran over 9 million total miles in the largest field test in the history of the company. With our new X15 engine platform, we are reconfirming our commitment to provide customers with the most dependable product in the market. Period.

## DURABILITY, EFFICIENCY AND INNOVATION THAT WILL MAKE HISTORY. AGAIN.

It began as a radically innovative platform, complete with dual overhead cams, exceptionally strong engine braking and an even tougher head and block, for unrivaled dependability. Customers took notice, quickly making the Cummins ISX15 the best-selling engine in its category, by far. But at Cummins, we're never satisfied with the status quo. So virtually every critical component has been scrutinized, modified, upgraded and improved. All that makes the X15 a completely reinvented platform that delivers the best performance and dependability in the industry.

Dynamic electronic features, the high-efficiency VGT<sup>®</sup> Turbo and an optimized combustion formula have resulted in a significant increase in fuel efficiency and throttle response. The integrated Single Module<sup>™</sup> aftertreatment system dramatically increases maintenance intervals while saving weight and space. We've combined the best available components with our advanced engine controls into one fully integrated powertrain package that is so efficient that it is redefining the heavy-duty trucking industry. Again.

## EFFICIENCY SERIES





In 1931, a Cummins-powered truck demonstrated reliability and fuel efficiency in a cross-country run from New York to Los Angeles, averaging 33.03 mph and beating the record held by General Motors®, with a running time of 97 hours, 20 minutes. The truck averaged 15.75 mpg, and fuel for the 3,214-mile trip cost \$11.22.

## PASS GO. SAVE \$200.

You don't run a business with play money. So fuel economy matters – a lot. Cummins X15 includes the most advanced fuel-saving features, so you get the most out of every drop of diesel fuel, from the optimized cam profile to a new piston structure. Your money stays where it belongs – in your wallet.

Cummins continues to deliver superior fuel economy on the X15 through innovation in dynamic electronic controls and enhanced engine breathing. The X15 Efficiency Series uses an optimized combustion recipe, which enables it to achieve the highest compression ratio in the industry, and improve thermal efficiency. Cummins is able to leverage the technology through the application of our proprietary VGT Turbo and XPI fuel system.

The integration of these technologies provides superior efficiency and crisp response to driver command. In essence, the X15 breathes like a medium-bore engine, but delivers big-bore performance. Cummins continues its legacy of innovation by becoming the first to introduce this combustion technology to the commercial truck market.



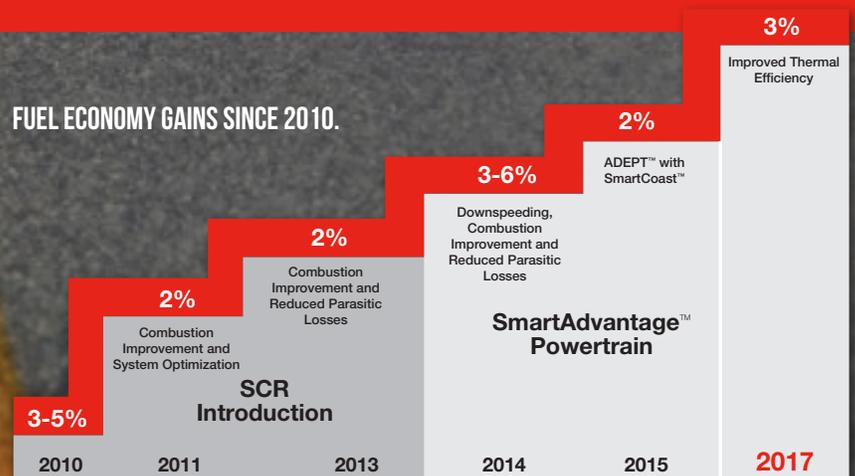
"Not like anything I've ever driven... superior to any transmission setup I've ever experienced. For every little detail, it knows exactly what grade you are at and exactly how much fuel to apply and how much power is needed... It's been truly unbelievable... far more than I ever expected. The SmartAdvantage setup gives me all the numbers I want, and then just the ease of driving... it takes a lot off your shoulders, especially going through mountains; it is not nearly as stressful."

– Mike Carlson,  
Redefining Tour Driver

## 20% BETTER. EVERY™ GALLON.

If you're driving a 2010 truck, you're missing out on lots of great stuff, including the introduction of the SmartAdvantage Powertrain. Cummins and Eaton® have combined forces to deliver the ultimate fuel-sipping powertrain package on the market. Many things go into perfecting the integration of the best products from two legendary powertrain component manufacturers, but here's what matters: You can get up to 20 percent better fuel economy with the X15 SmartAdvantage Powertrain alone. If you're currently getting 6.5 mpg, you'll see that number jump to at least 7.5 mpg, and probably closer to 8 mpg. For a truck running 120,000 miles per year, that means about 2,500 fewer gallons of fuel going into the tank – a direct savings of \$7,500 per truck at \$3 a gallon. The SmartAdvantage Powertrain also offers the power of choice. It is available with either small-step overdrive or direct-drive gearing. To see which option might fit your needs, visit [cumminsengines.com/smartadvantage](http://cumminsengines.com/smartadvantage) and click on the Selection Guide.

### FUEL ECONOMY GAINS SINCE 2010.



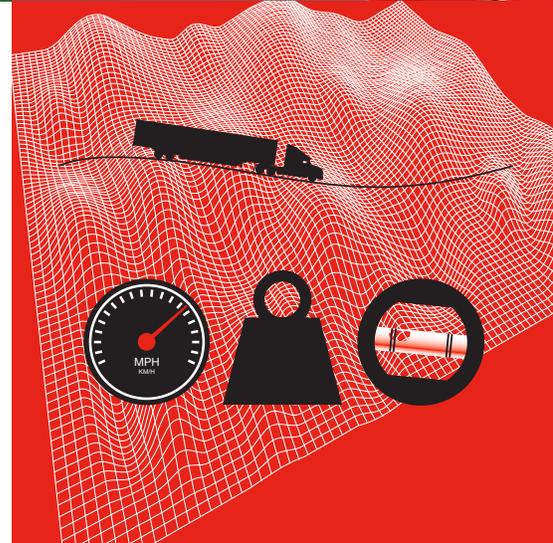
## MORE HORSEPOWER. MORE SAVINGS.

Whether you're hauling 80,000 pounds through the Rockies or you're an expedited shipper committed to delivering on a moment's notice, you need a big-bore 15-liter engine to get the job done – but not just any big-bore: You need the X15. Otherwise, you're going to be riding the right lane with your flashers on and getting passed by minivans. Not to mention, you'll be wasting fuel. Fact is, the X15 Efficiency Series will deliver best-in-class fuel economy on those kinds of runs, with up to 500 hp. The X15 500 is the ultimate package, pleasing drivers and accountants alike, and can be expected to drive our industry-leading resale value to even greater heights down the road.



## ROOKIES DRIVE LIKE PROS — WITH ADEPT.™

ADEPT interacts with automated manual transmissions, adapting to operating conditions to help even novice drivers operate as efficiently as your most seasoned and efficient professional. The full suite of ADEPT features includes SmartTorque2, SmartCoast™ and Predictive Cruise Control. Together, they are proven to deliver up to 6 percent better fuel economy. SmartTorque2 senses both the selected gear and overall engine load, based on gross vehicle weight (GVW), aerodynamic drag and road grade. As those conditions vary, SmartTorque2 determines the exact amount of torque needed to maintain road speed and eliminate unnecessary downshifts, ensuring more time spent inside the “sweet spot” – the rpm range that achieves the best fuel economy.





“The amount you save in energy from a fatigue standpoint is huge. It’s really everything. Never at any time did I really feel like I could do a better job at driving the truck than it could do on its own. If I’m climbing a mountain and going 65 miles per hour and cruise is set, I just let it do its thing. I know it’s going to do its job...very impressive!”

– Mike Carlson,  
Redefining Tour Driver

SmartCoast improves efficiency while coasting. On moderate downhill grades, the transmission will keep the clutch engaged while shifting out of gear, allowing the engine to return to idle and reducing drag on the vehicle. That conserves vehicle momentum and improves fuel economy. The transmission automatically shifts into the correct gear at the exact moment that power is needed to maintain road speed, whether you need acceleration or engine braking.

An additional feature that works with SmartCoast is Predictive Cruise Control (PCC). Using GPS technology, it previews the road ahead and modifies both the fueling rate and road speed limit to take advantage of acceleration and vehicle momentum with maximum precision. Advanced technology such as SmartTorque2, SmartCoast and PCC make the X15 the most fuel-efficient engine in the industry – a fact that’s not up for debate.

## BRAWN AND BRAINS.

The value that Cummins is bringing to the trucking industry goes well beyond engine hardware. Every X15 is factory-ready to connect to Cummins suite of telematics services providing engine monitoring, real time diagnostics, prognostics and on-the-road calibration updates (over-the-air programming). With Connected Diagnostics, Connected Advisor and Connected Software Updates, Cummins-powered trucks run with the highest efficiency and lowest maintenance costs possible.

## OVER-THE-AIR-PROGRAMMING CAPABILITY.

A first for the market, Cummins enables you to manage your engine system remotely when connected to a capable telematics system. Connected Software Updates enables engine calibration software updates without a visit to the service bay. Cummins will also leverage the capability to securely transmit information to the engine to tune your engine for optimum performance, fuel economy or road speed in the future. Cummins is a leader in providing telematics services to the trucking industry that empower you to keep your trucks rolling and customers happy.



## CONNECT WITH A WORLD OF CONFIDENCE.

The minute a fault code is generated, Connected Diagnostics uses your on-board telematics system to connect with Cummins. Instantly, a snapshot of performance data is analyzed and compared to our worldwide history for diagnosis. A probable cause is determined, and a recommended action with recommended service locations is sent to fleet management. Plus, now with the prognostic capability of Connected Advisor, Cummins leads the way by offering the capability to predict engine issues before they even occur. Helping you always stay one step ahead.



## POWER TO GO. POWER TO WHOA.

The X15 is optimized to deliver the power you need, with 400 hp to 500 hp and 1450-1850 lb-ft of peak torque – more than enough to get you off the line, down the road and up the steepest hill. But what's really impressive is what happens when you crest the hill and take your foot off the accelerator. That's when the most powerful engine brake in the industry kicks in, and you just ease on down the road. You get over 400 braking horsepower (bhp) at just 1300 rpm. When the X15 pulls on the reins, you can go light on the brake pedal, saving wear and tear on your service brakes while staying in total control.

### X15 EFFICIENCY SERIES BRAKING HORSEPOWER.

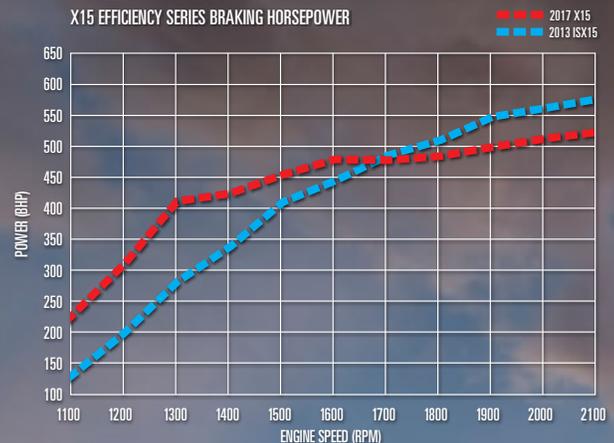


### ONE DOES THE WORK OF TWO: SINGLE MODULE AFTERTREATMENT.

Designed by Cummins Emission Solutions, this is truly a one-piece design. Up to 40 percent lighter and up to 60 percent smaller, it has better heat management, and offers easier serviceability. Plus, Diesel Particulate Filter (DPF) ash capacity has been increased to more than double the maintenance intervals in many cases.

### IMPROVED DOSER.

A second-generation urea doser eliminates the need for engine coolant lines to and from the injector, and prevents crystallization and clogging of Diesel Exhaust Fluid (DEF) within the unit. The combination of better spray performance, enhanced mixing and reduced deposit formation makes this unit far more robust and reliable than alternative aftertreatment systems.



## X15 FEATURES.

### **VGT® Turbocharger From Cummins Turbo Technologies**

This turbocharger has variable geometry, for precision and responsiveness. The actuator is 6 times stronger than that of previous versions, for even better dependability. An enhanced design with a new impeller provides rapid boost and improved engine braking.

### **XPI Fuel System From Cummins Fuel Systems**

The XPI system delivers superior performance, regardless of engine rpm. Multiple injection events per cycle improve fuel efficiency and enable smoother, quieter operation. Steel plungers and diamondlike coated roller tappets make this the toughest XPI fuel system to date.

### **Single Module™ Aftertreatment System From Cummins Emission Solutions**

A flow-through design offers better heat management, for improved efficiency. Increased ash capacity means less maintenance. And it's up to 40 percent lighter and 60 percent smaller than two-part systems.

### **Fleetguard® Fuel Filters And Lube Filters From Cummins Filtration**

These filters protect against corrosion and contaminants that can cause performance issues. The Fleetguard LF 14000NN lube filter provides less restriction, for faster flow and better cold-start capability, while still trapping nearly 99 percent of particles down to 4 microns.

### **High-Capacity Electronic Control Module (ECM)**

The robust ECM manages the engine and aftertreatment system simultaneously, for optimum performance and fuel efficiency, and is factory-ready for over-the-air programming when connected to a capable telematics system.

### **Cummins Engine Brake**

The most powerful engine brake in the industry. Adds control on downhill grades, helping reduce service brake wear, downtime and replacement costs.



### **Vehicle Acceleration Management (VAM)**

VAM reduces driveline wear and improves fuel economy in bobtail and light-load driving conditions.

### **Connected Diagnostics™**

This software-only application works through the telematics system of your preference to wirelessly connect the engine to Cummins for rapid fault diagnosis. Information and expert Cummins guidance maximize uptime.

### **Power Cylinder Improvements**

Combustion's hot. That's bad for your oil. The X15 incorporates an enhanced piston design that reduces the transfer of heat to the oil, increasing both durability and oil drain intervals.



# X15 EFFICIENCY SERIES

**400-500 HP**

**1450-1850 LB-FT TORQUE**

## X15 EFFICIENCY RATINGS.

With a broad range of traditional, SmartTorque2 and SmartAdvantage ratings from 400 hp to 500 hp, there is an optimized solution to deliver what you need with the fuel economy you want.

## LESS TIME IN THE SHOP, AND MORE ON THE ROAD.

Cummins X15 now has some of the longest service intervals in the industry. The X15 will help you keep more of your hard-earned money. If you're currently running a 2010 Cummins ISX15, you're going to see a 40 percent reduction in maintenance costs over the first half-million miles – from close to \$14,000 to less than \$8,000.

How is that possible? Not only have we increased the oil drain interval to 50,000 miles in light duty cycles, but with Cummins OilGuard oil analysis program, engines can extend to 80,000 miles between drains. The DPF in our Single Module aftertreatment system doesn't require maintenance until 600,000 to 800,000 miles, which makes it nearly maintenance-free for many first owners. And now, the system tells you when the DPF needs to be changed, so you can wait as long as it takes to get full before replacing it. And we eliminated the hydrocarbon doser and the maintenance on the crankcase ventilation filter, so you don't even need to think about those anymore.

## X15 MAINTENANCE INTERVALS.

Item	Severe < 5.5 mpg mi/km	Normal 5.5-6.5 mpg mi/km	Light > 6.5 mpg mi/km
Oil Drain Interval	25,000 mi 40,000 km	35,000 mi 56,000 km	50,000 mi 80,000 km
Oil Drain With Cummins OilGuard™ <sup>1</sup>	–	–	Up to 80,000 mi Up to 130,000 km
Oil Drain With Valvoline™ Premium Blue	–	–	60,000 mi 96,000 km
Fuel Filters	25,000 mi 40,000 km	35,000 mi 56,000 km	50,000 mi 80,000 km
Diesel Particulate Filter <sup>2</sup>	250,000-400,000 mi 400,000-640,000 km	400,000-600,000 mi 640,000-960,000 km	600,000-800,000 mi 960,000-1,300,000 km
DEF Filter	250,000 mi 400,000 km	280,000 mi 448,000 km	300,000 mi 480,000 km
Valve Adjustment	500,000 mi 800,000 km	500,000 mi 800,000 km	500,000 mi 800,000 km

1 – Up to 80,000-mile oil drain interval with participation in Cummins OilGuard™ oil analysis program.

2 – Maintenance lamp will illuminate when DPF maintenance is required.

## A BASE WARRANTY THAT COVERS ALL THE BASES.

Base engine warranty coverage\* for Cummins X15 includes parts and labor on warrantable failures for both the engine and aftertreatment system – with no deductible. Cummins base warranty coverage is good for 2 years/250,000 miles (402,336 km).

\*Covers defects in Cummins materials or factory workmanship.

## WE'VE GOT YOUR BACK.

Peace of mind comes from knowing that you've bought a quality product, and that the manufacturer will stand behind it. Cummins offers a wide variety of protection plans for X15 engines, tailored to meet the needs of specific applications and trade cycles. Extended coverage allows you to make financial projections with complete confidence, with protection plans for up to 7 years or up to 500,000 miles (804,672 km) on registered parts and labor. Cummins extended coverage plans are available covering internal components and major engine systems, including the turbocharger, water pump and fuel injectors, air compressor, fuel pump and select engine sensors. For details, contact your Cummins distributor or dealer.

## BEYOND SUPPORT. CUMMINS CARE.

1-800-CUMMINS™ (1-800-286-6467) goes beyond just being a new phone number for Cummins Care. It's your connection to a whole new level of support. One call, and you'll be quickly connected with a Cummins expert who has the specialized skill set, experience, technology and in-depth knowledge to deliver complete solutions while working with one of over 3,500 authorized parts and service locations.



## TRUST MAKES ALL THE DIFFERENCE.

At Cummins, we've got your back. Our engine experts and extensive training programs ensure service and support excellence you can depend on. Everything from upfront vehicle and engine spec'ing to maximizing uptime with features like Cummins Guidanz™ mobile app and INLINE™ mini adapter. This innovative technology enables rapid downloading of engine information on a smartphone or tablet, delivering prioritized fault codes and other key engine information as you stand beside your Cummins-powered vehicle. It's just one example of how Cummins is totally committed to ensuring your success.

## REDEFINING VALUE.

The highest fuel economy in the industry. The longest maintenance intervals, for lower maintenance costs. Increased uptime, for greater productivity and profits. Technology that accelerates service accuracy and speed. The biggest, most capable parts and service network in the industry. Being able to choose the best components and put them together. Top it off with the best resale value of any engine in the industry, and you've got a Total Cost of Ownership that puts you in front of your competition. The Cummins X15 Efficiency Series is redefining value, so you can redefine success. To learn more about Cummins X15, visit [cumminsengines.com](http://cumminsengines.com).

## EFFICIENCY SERIES RATINGS.

Engine Model	Power hp (kW)	Peak Torque lb-ft (N•m) @ rpm
X15 500 SA	500 (372)	1550/1850 (2101/2508) @ 1000
X15 500 ST	500 (372)	1550/1850 (2101/2508) @ 1000
X15 500	500 (372)	1850 (2508) @ 1000
X15 450 SA	450 (335)	1550/1850 (2101/2508) @ 1000
X15 450 SA	450 (335)	1550/1750 (2101/2372) @ 1000
X15 450 ST	450 (335)	1550/1850 (2101/2508) @ 1000
X15 450 ST	450 (335)	1550/1750 (2101/2372) @ 1000
X15 450	450 (335)	1850 (2508) @ 1000
X15 450	450 (335)	1750 (2372) @ 1000
X15 450	450 (335)	1650 (2237) @ 1000
X15 400 SA	400 (298)	1550/1850 (2101/2508) @ 1000
X15 400 SA	400 (298)	1550/1750 (2101/2372) @ 1000
X15 400 SA	400 (298)	1450/1650 (1965/2237) @ 1000
X15 400 ST	400 (298)	1550/1850 (2101/2508) @ 1000
X15 400 ST	400 (298)	1550/1750 (2101/2372) @ 1000
X15 400 ST	400 (298)	1450/1650 (1965/2237) @ 1000
X15 400	400 (298)	1850 (2508) @ 1000
X15 400	400 (298)	1750 (2372) @ 1000
X15 400	400 (298)	1650 (2237) @ 1000



# X15™

EFFICIENCY  
SERIES



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