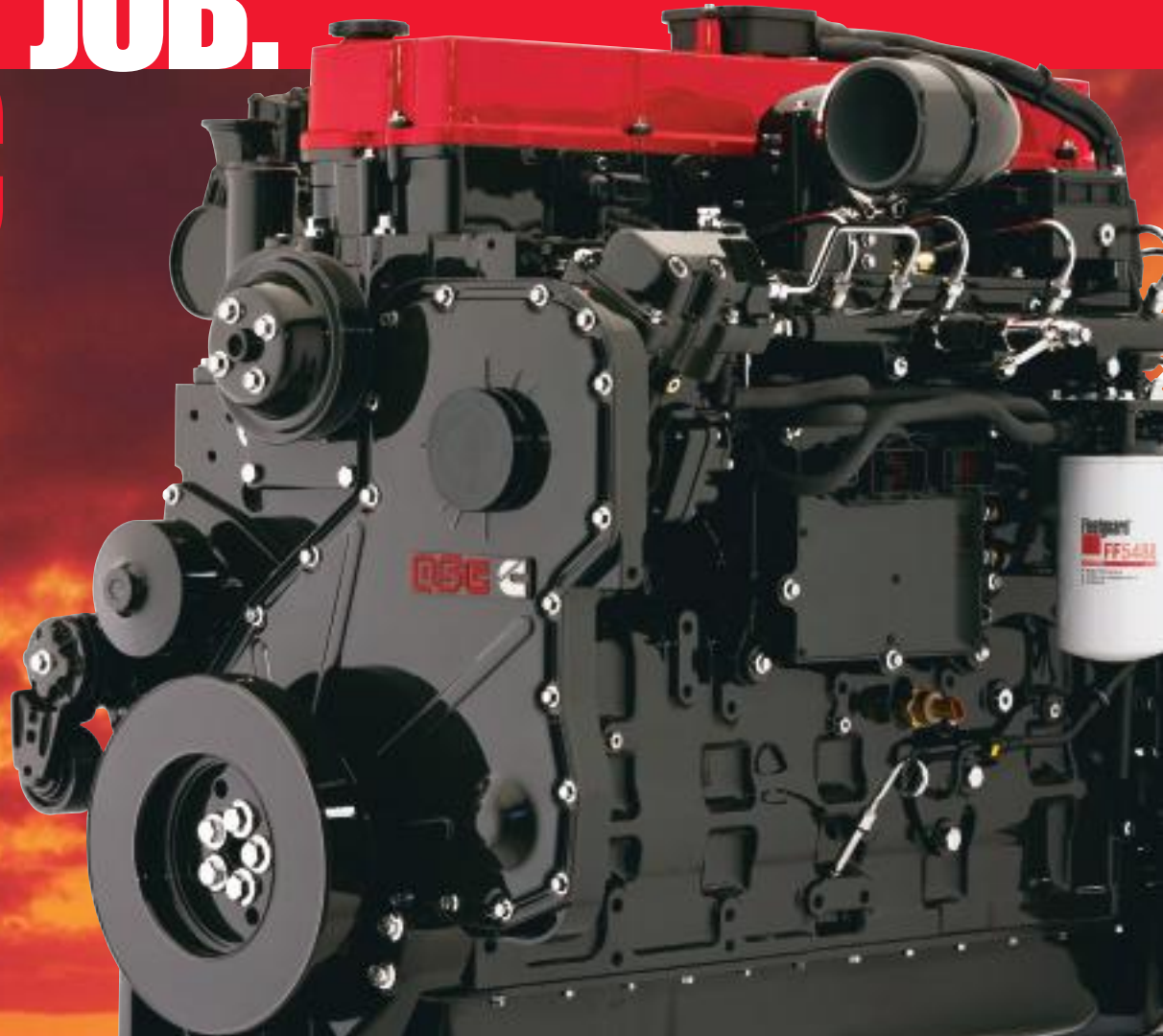




**EVERY JOB.**

**QSC**



**FOR OFF-HIGHWAY APPLICATIONS**

# FOR OFF-HIGHWAY APPLICATIONS.



The world is full of uncertainties, from weather predictions to economic forecasts. But you can always count on Cummins QSC-powered equipment to pull you through. Cummins QSC engines are built on one of the world's most successful – and durable – engine block designs. In fact, there are over three quarters of a million in use around the globe every day.

The QSC advanced electronics provide enhanced engine performance with higher torque and better throttle response at every rpm. Electronic engine control provides additional advantages that include increased fuel economy, precision diagnostics and engine protection. And the impressive durability of the QSC is enhanced by longer maintenance intervals, plus up to 50% quieter operation for improved operator comfort.

The QSC meets every Tier 2/Stage II emissions standard without compromise. And with its ideal combination of electronic controls and durable block design, the QSC is ready to meet every one of your toughest applications.

## Performance.

The QSC's free-breathing 24-valve cylinder head, high-pressure fuel system and robust electronic controls make for a completely programmable, highly durable, highly fuel-efficient power plant. With one of the highest power-to-weight ratios and lowest cost of operation of any engine in its class. And ratings that range from 240-340 hp to deliver the power and the versatility you need to match your equipment. Every time.



## Ratings

ENGINE MODEL	ADVERTISED HORSEPOWER	PEAK HORSEPOWER	PEAK TORQUE
QSC 340*	340 @ 2200 RPM	350 @ 2000 RPM	1050 LB-FT @ 1400 RPM
QSC 320*	320 @ 2200 RPM	330 @ 2000 RPM	1000 LB-FT @ 1400 RPM
QSC 300	300 @ 2200 RPM	320 @ 2000 RPM	1000 LB-FT @ 1400 RPM
QSC 300	300 @ 2100 RPM	320 @ 1900 RPM	1000 LB-FT @ 1400 RPM
QSC 290*	290 @ 1800 RPM	305 @ 1600 RPM	1030 LB-FT @ 1400 RPM
QSC 285	285 @ 2200 RPM	305 @ 2000 RPM	935 LB-FT @ 1400 RPM
QSC 280	280 @ 2200 RPM	300 @ 2000 RPM	1000 LB-FT @ 1400 RPM
QSC 260	260 @ 2200 RPM	280 @ 2000 RPM	870 LB-FT @ 1400 RPM
QSC 245**	245 @ 1800 RPM	245 @ 1800 RPM	870 LB-FT @ 1400 RPM
QSC 240	240 @ 2200 RPM	260 @ 2000 RPM	800 LB-FT @ 1400 RPM

\*Indicates a restricted rating.

\*\*Indicates continuous/water management rating.

All ratings are intermittent unless otherwise noted. Additional ratings may be available. Check with your Cummins distributor or dealer.

## Specifications

ENGINE TYPE	IN-LINE, 6-CYLINDER	
DISPLACEMENT	505 CU IN	8.3 LITERS
ADVERTISED HORSEPOWER	240-340 HP	179-254 KW
PEAK TORQUE	800-1050 LB-FT	1085-1424 N•M
BORE AND STROKE	4.49 IN X 5.31 IN	114 MM X 135 MM
ASPIRATION	CHARGE AIR COOLED	
OIL SYSTEM CAPACITY	21 U.S. QT	19.9 LITERS
COOLANT CAPACITY	11 U.S. QT	10.4 LITERS
LENGTH	44.4 IN	1128 MM
WIDTH	30.9 IN	785 MM
HEIGHT	41.8 IN	1062 MM
WET WEIGHT	1,594 LB	723 KG

## Features And Benefits.

Standard features include:

- Full-Authority Electronic Controls – Provide seamless integration with other components to optimize engine operation.
- Stiffer Block Design – For reduced noise and vibration. Fluid circuits are integrated, replacing hoses and eliminating potential leaks.
- Wastegated HX40 Turbocharger – Designed by Holset, a Cummins subsidiary. Delivers maximum power and torque.
- Low-Tension Belt Arrangement – Provides maximum power output through the accessory drive.
- Ni-Resist Piston Inserts – Provide exceptional oil control.
- Mid-Stop Cylinder Liners – Reduce cavitation and improve rebuildability.
- Plasma-Coated Top Ring – Increases durability in high-horsepower ratings.
- Gear Housing Design and Front-End Support – The gear housing and accessories mount directly to the block for improved durability.
- Improved Piston Design – Symmetrical piston bowl combines with centered injectors to deliver optimal combustion.

## Options.

- Noise reduction packages are available with up to 3 dBA additional noise reduction.
- 12- or 24-volt electrical capacity.
- Front-mount accessory drive option available for hydraulic pumps or air compressors.
- Rear Engine Power Take-Off (REPTO) available for hydraulic pumps or air compressors.
- Many others.

## Maintenance And Service.

Minimum maintenance has been designed into every QSC engine. The QSC filter is just one of many standard features that minimize downtime for maintenance. The filter incorporates an integral water separator and a water-in-fuel sensor to help protect against damage from water contamination. An integrated water pump, lube pump and cooler housings and coolant bypass eliminate possible leak points. QSC engines are designed to run up to 500 hours between scheduled maintenance stops.

## Cummins QuickCheck III.

Questions about engine information? Cummins QuickCheck III\* puts every answer in the palm of your hand! QuickCheck III software, together with your PDA handheld device, reads and captures engine data quickly and conveniently from any Cummins electronic diesel engine or other engines you run (via J2587 and J1939). Use it to check everything from fuel burned and total engine hours to coolant temperature and boost pressure. QuickCheck III even logs fault codes, which can be used with Cummins INSITE™ to get detailed repair instructions for faster service.

For information on hardware compatibility, please visit us online at <http://quickcheck.cummins.com> or see Bulletin 4081450.





## Every Installation.

Getting every installation right – the first time – is as important to Cummins as it is to you. PowerMatch and Advisor help ensure that we get it right, every time.

## Cummins Advisor.

Advisor software builds a virtual model to make sure every system (air, intake, exhaust, cooling, etc.) is integrated for optimum performance.

It takes into account everything from load factors to operating climates to duty cycles – then identifies systems or components that could negatively impact reliability – listing alternatives that deliver the performance you expect the first time – every time.



## Cummins PowerMatch.

Cummins partners with OEM engineers to test and match the power of the QSC engine to specific equipment, terrain and weather conditions. We use our advanced electronics to shape power curves and ratings to match the jobs your equipment will be doing, taking into account the working environment, load factors and operating modes. Then we optimize the engine's performance with other vehicle components, using Advisor.



## Cummins QuickServe.®

Cummins QuickServe is an entire system dedicated to performing fast, accurate maintenance and repair services – using quality Cummins and Cummins ReCon® parts – to minimize downtime and maximize productivity. Our distributors' service record is so reliable, we offer an exclusive QuickServe Guarantee\* to customers in the majority of our industrial markets.

Cummins distributors guarantee that engine service performed in their shop with a standard repair time of four hours or less will be completed that same day – or you'll receive a \$75 credit toward future Cummins parts or service work.

If your equipment is down and you can't bring it to one of our locations, we'll come to yours. A Cummins QuickServe truck and certified service technician will be dispatched within four hours of your call, or you'll receive a \$75 credit toward future Cummins parts or service work.



To schedule or request service, call your local Cummins distributor today. For additional details or to learn more about the QuickServe Guarantee, see our web site at [www.everytime.cummins.com](http://www.everytime.cummins.com).

\*\$75 credit applies only to service in the U.S. and Canada. The QuickServe Guarantee varies by country. Please contact your local Cummins distributor for details.



## Base Warranty.

QSC engines come with a full 2-year/2,000-hour warranty that covers all Cummins branded components, including electrics such as starters and alternators. Major components coverage continues into the third year, up to 10,000 hours of operation from the time your QSC engine goes in service.



Three simple steps explain everything you need to know:

**Step One:** Full coverage on all Cummins industrial engines and branded components with unlimited hours during the first year of operation. This includes Cummins branded electrics such as alternators, starters, etc.

**Step Two:** Full coverage is extended for the second year, up to 2,000 hours of operation. Total hours are cumulative from the time the engine goes in service.

**Step Three:** Major components coverage including block, crankshaft, camshaft and rods on all products for the third year or up to 10,000 hours of operation. Total hours are cumulative from the time the engine goes in service.

## QuickServe® Online.

QuickServe Online (<http://quickserve.cummins.com>) gives you easy access to parts and service information. While there are over eight million engines and literally billions of part numbers indexed in the QuickServe Online database, you can find the information you need in seconds with our high-speed search function and your engine's serial number.

## Encompass Protection Plans.

Unlike plans offered by other diesel manufacturers, Encompass gives you a choice of hourly or unlimited plans and options that include parts only, parts and labor, or parts, labor and travel coverage. Encompass protection plans are available for your QSC engine with your choice of up to five years of extended coverage with unlimited hours. Yearly plans with 7-year coverage for up to 6,000 hours of operation are available.

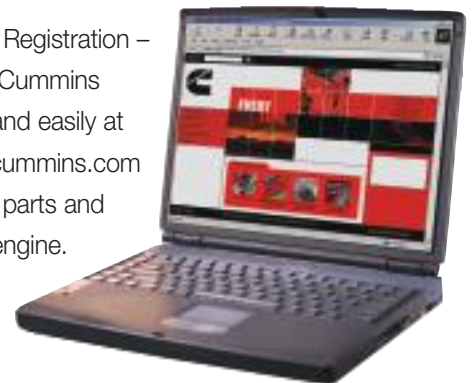
These plans cover all Cummins-manufactured components. Maintenance components are included through the end of the third year.

Encompass protection plans may be purchased up to six months after the in-service date of your QSC engine. See your Cummins distributor for pricing. For additional details, ask to see Bulletins 3624422, 3624423, 3624424 and 3624570.

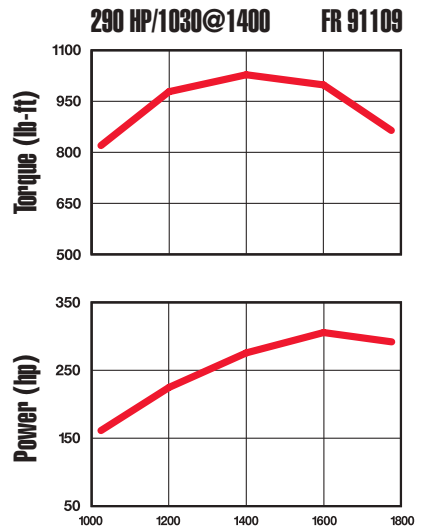
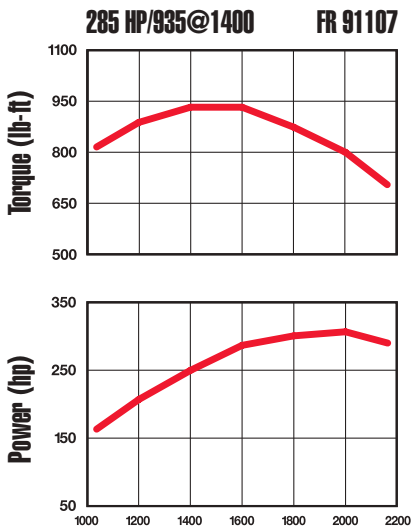
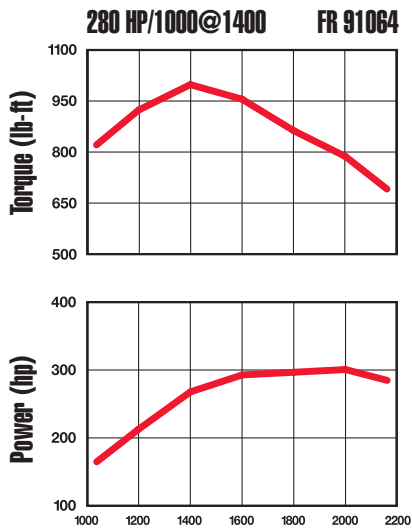
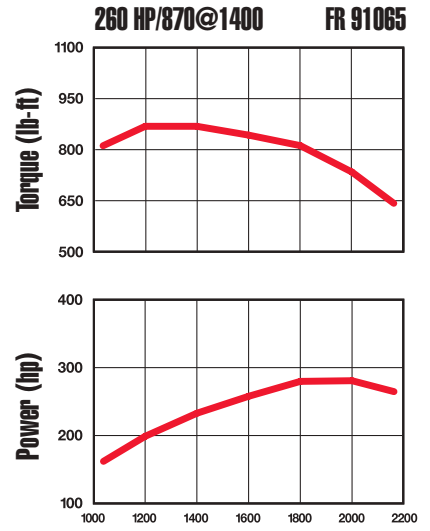
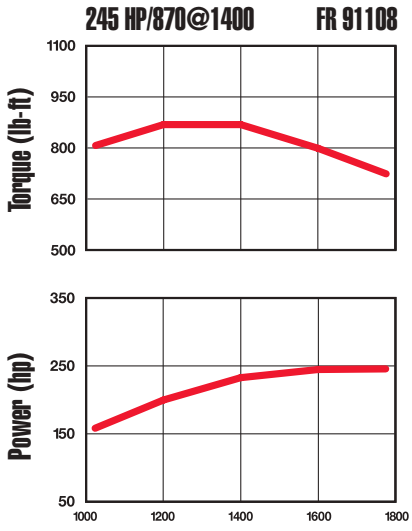
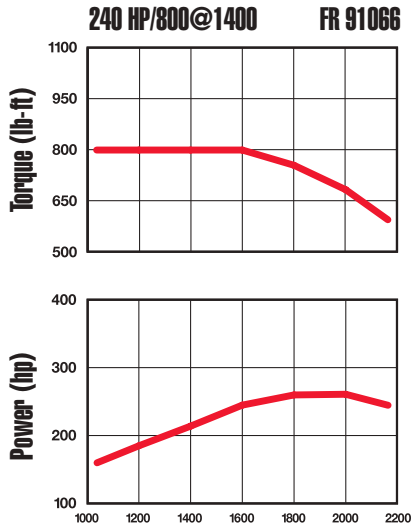
A \$200 deductible applies per service visit after the expiration of the base warranty.

## Every Question, Answered.

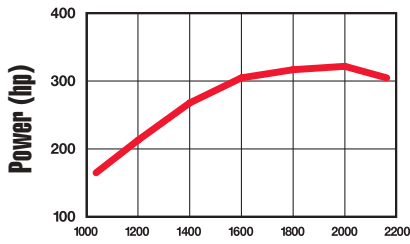
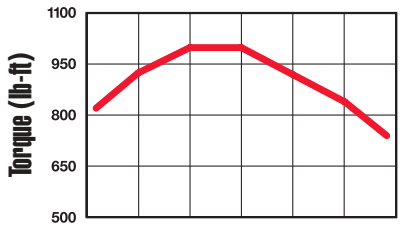
- Service Network – Cummins engines are backed by the strength of Cummins global network of over 5,500 service locations worldwide.
- Customer Assistance Center – For technical assistance, service locations and product literature, call 1-800-DIESELS (1-800-343-7357).
- Cummins PowerMaster – E-mail the experts for timely answers to Cummins-related questions at [powermaster@cummins.com](mailto:powermaster@cummins.com).
- Cummins Online Registration – Register all your Cummins engines quickly and easily at [www.everytime.cummins.com](http://www.everytime.cummins.com) to ensure quality parts and service for your engine.



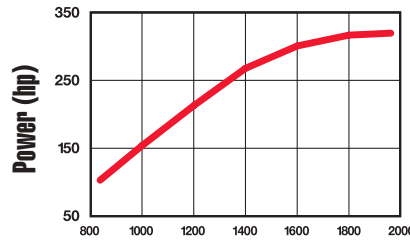
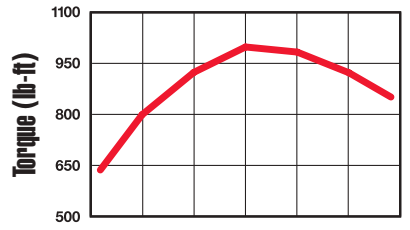
# TORQUE AND POWER CURVES.



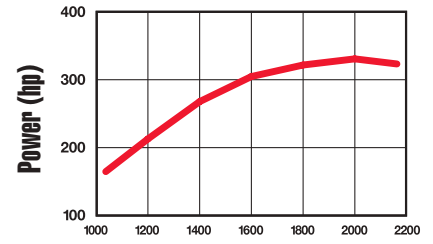
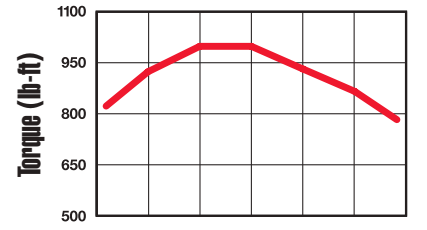
**300 HP/1000@1400 FR 91063**



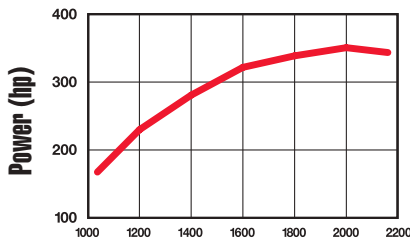
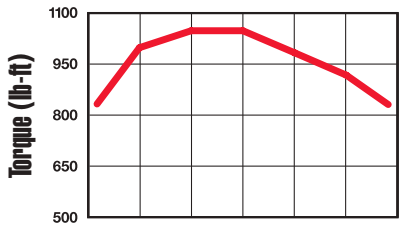
**300 HP/1000@1400 FR 90965**



**320 HP/1000@1400 FR 91062**



**340 HP/1050@1400 FR 91061**





**Cummins Inc.**  
**Box 3005**  
**Columbus, IN 47202-3005**  
**U.S.A.**

Phone: 1-800-DIESELS (1-800-343-7357)  
Fax: 1-800-232-6393  
E-Mail: [powermaster@cummins.com](mailto:powermaster@cummins.com)  
Internet: [www.everytime.cummins.com](http://www.everytime.cummins.com)

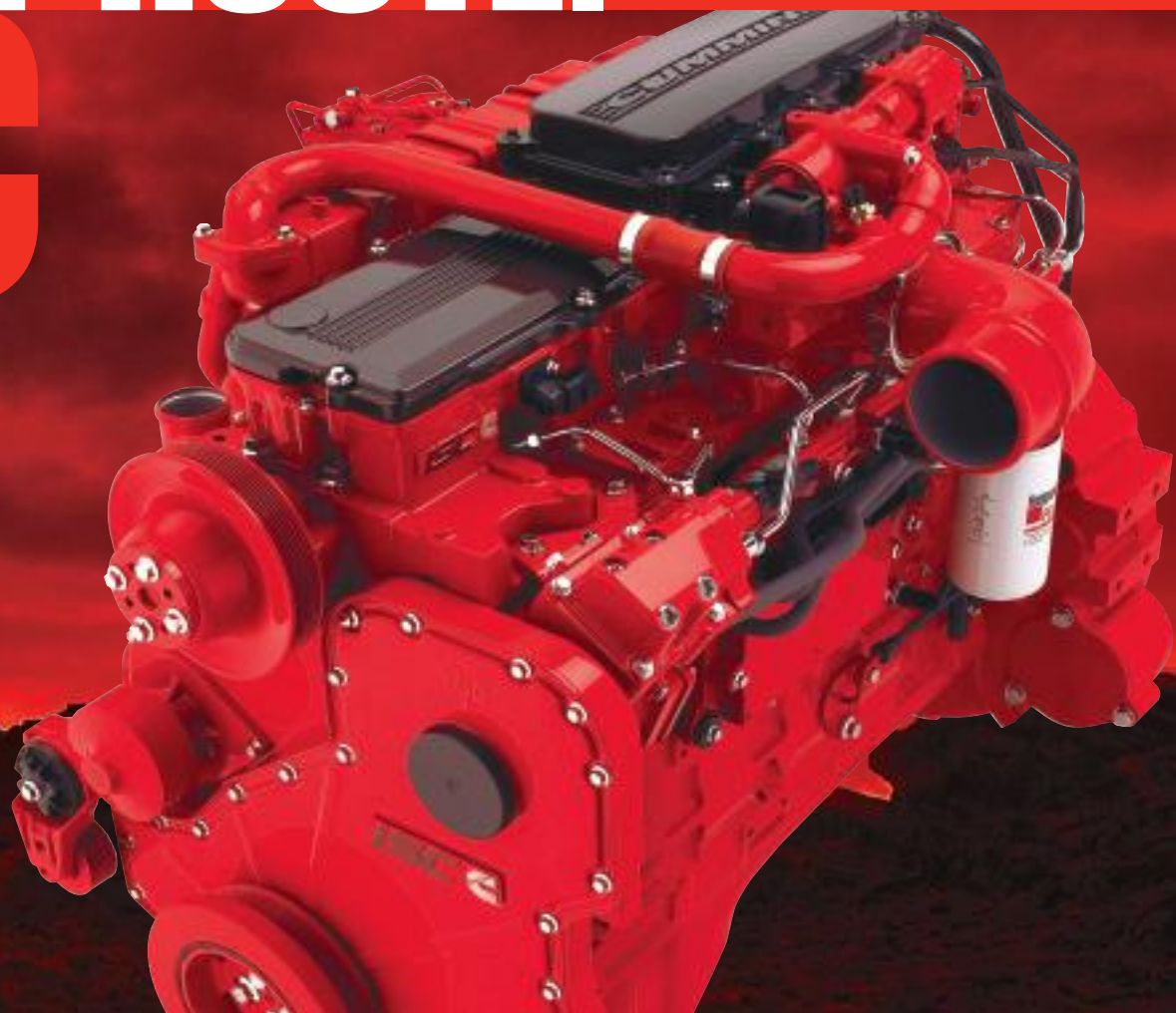
Bulletin 4087036 Printed in U.S.A. 8/04  
©2004 Cummins Inc.





**EVERY<sup>TM</sup> ROUTE.**

**ISC**



**FOR SCHOOL BUS, MOTORCOACH  
AND SHUTTLE BUS APPLICATIONS**

# FOR SCHOOL BUS, MOTORCOACH AND SHUTTLE BUS APPLICATIONS.



The 2007 ISC is the newest generation of the C Series family – a family that has proven itself reliable and efficient in many years of service in the bus industry.

Cummins ISC for 2007 reduces emissions by more than 90% while maintaining the traditional values of dependability and efficiency. We achieve this balance with a totally integrated emissions control system that includes a High Pressure Common Rail fuel injection system, our proven cooled-EGR subsystem, the patented Cummins Variable Geometry Turbo (VG Turbo) and a Cummins Particulate Filter.

## Features And Benefits.

A High Pressure Common Rail (HPCR) fuel system maintains high injection pressures regardless of engine speed for optimum performance across the entire rpm range. High-pressure fuel injection and revised gear designs combine to make the ISC the quietest engine in its class, reducing driver fatigue and improving safety. And simple maintenance reduces operating costs and scheduled downtime.

Other ISC benefits include:

- Outstanding Performance – The High Pressure Common Rail fuel system delivers power, emissions control and excellent fuel economy across the entire operating range. The VG Turbo provides exact boost across the operating range, with electric actuation for enhanced response and control. Its patented sliding-nozzle design increases reliability and durability.



## Ratings

ENGINE MODEL	ADVERTISED HORSEPOWER (kW)	PEAK TORQUE LB-FT (N•M) @ RPM	GOVERNED SPEED
ISC 330	330 (246)	1000 (1356) @ 1400	2200 RPM
ISC 315	315 (235)	1000 (1356) @ 1400	2200 RPM
ISC 300	300 (224)	860 (1166) @ 1300	2200 RPM
ISC 285	285 (213)	800 (1085) @ 1300	2200 RPM
ISC 260	260 (194)	800 (1085) @ 1300	2200 RPM
ISC 260	260 (194)	660 (895) @ 1300	2400 RPM
ISC 240	240 (179)	660 (895) @ 1300	2400 RPM

## Specifications

ADVERTISED HORSEPOWER	240-330 HP	179-246 kW
PEAK TORQUE	660-1000 LB-FT	895-1356 N•M
GOVERNED SPEED	2200-2400 RPM	
CLUTCH ENGAGEMENT TORQUE	500 LB-FT	678 N•M
NUMBER OF CYLINDERS	6	
OIL SYSTEM CAPACITY	6.3 U.S. GALLONS	23.8 LITERS
SYSTEM WEIGHT	1,680 LB	762 KG
ENGINE (DRY)	1,630 LB	739 KG
AFTERTREATMENT*	50 LB	23 KG

\*Increase over standard muffler.

- **Enhanced Braking** – The VG Turbo doubles as an exhaust brake, increasing vehicle control and reducing service brake wear.
- **Power Ratings** – The ISC delivers up to 330 hp with 1000 lb-ft of peak torque, providing extra power and torque for high-capacity bus loads or routes with extra steep grades.
- **Lower Operating Costs** – Long maintenance intervals combine with a simplified design to lower costs of operation.
- **Proven Emissions Controls** – Cooled Exhaust Gas Recirculation and a Cummins Particulate Filter help the ISC meet 2007 emissions standards without compromising performance, reliability or durability.
- **Enhanced Reliability and Long-Life Design** – Including a high-strength block and cylinder head, roller followers, a combination full-flow and bypass oil filter and mid-stop replaceable cylinder liners.

## Electronic Features.

The ISC electronic hardware and software use a common architecture with all other Cummins engines, technology that is time-tested and proven. Plus, the ISC has all the latest diagnostics, prognostics, maintenance monitoring and engine protection features.



## Automatic Transmission Matches.

ENGINE HP/TORQUE	MD3060	B300	B400
ISC 330/1000			●
ISC 315/1000			●
ISC 300/860			●
ISC 285/800	●		●
ISC 260/800	●		●
ISC 260/660	●	●	●
ISC 240/660	●	●	●

## Enhanced Reliability And Durability.

Cummins ISC is designed for years of dependable use. Targeted piston cooling and roller followers increase durability. A combination full-flow and bypass oil filter extends piston ring and bearing life. This, together with mid-stop cylinder liners, makes the ISC easy to rebuild. Other design features include:

- Six Sigma design practices have resulted in enhanced reliability for individual components and the total engine design.
- High-efficiency lube cooler lowers oil temperatures for long life. A robust breather virtually eliminates oil carryover.
- Coolant flow has been optimized and balanced, effectively reducing cylinder temperatures.

## Optional Equipment.

- E Brake by Jacobs® gives additional braking horsepower for greater vehicle control.
- Water-in-fuel sensor alerts drivers of contamination that could cause performance and durability problems.
- You can replace the standard 15.2-cfm WABCO air compressor with either an 18.7- or 30.4-cfm unit.

## ISC Maintenance Intervals.

	MILES KILOMETERS	HOURS	MONTHS
OIL AND FILTER	15,000 24,000	500	6
FUEL FILTER	15,000 24,000	500	6
SECONDARY FUEL FILTER	30,000 48,000	1,000	12
COOLANT FILTER	NONE*	NONE*	NONE*
OVERHEAD ADJUSTMENT	150,000 241,500	5,000	48
STANDARD COOLANT CHANGE	240,000 385,000	N/A	24
COALESCING FILTER	60,000 96,000	2,000	24
PARTICULATE FILTER CLEANING	200,000-400,000 MI (320,000-640,000 KM)		

\*If engine is equipped with an optional coolant filter, it will need to be replaced on the same intervals as the oil filter.

The Cummins Particulate Filter is designed to last the life of your engine. Regeneration is fully automated and controlled by the ECM. See Owners Manual for complete details.

## Every Repair.

- **INSITE™** – For years Cummins INSITE software has been making it easy for technicians to troubleshoot, repair and service our electronic engines through easy-to-follow steps on your computer. Providing the kind of uptime you demand for your bus.



- **QuickServe® Online** – Gives bus fleet maintenance personnel rapid access to parts and service information for over 9 million engine serial numbers. Part numbers and diagrams, maintenance information and service bulletins, warranty details and more are available every minute of every day via the Internet. See [quickserve.cummins.com](http://quickserve.cummins.com).

## Every Confidence.

Cummins base engine coverage for school buses is 5-year/100,000-mile (160,935 km) total coverage, with 3-year/300,000-mile (482,804 km) major components coverage. For coaches and shuttle buses, the base engine warranty is 2-year/unlimited mileage with 3-year/300,000-mile (482,804 km) major components coverage. Coverage includes full parts and labor on warrantable failures, and all consumables not reusable due to covered failure, with no deductible.



## Every Coverage.

Cummins offers extended coverage options on the ISC engine that are among the best in the bus industry. For specific details, contact your local distributor.

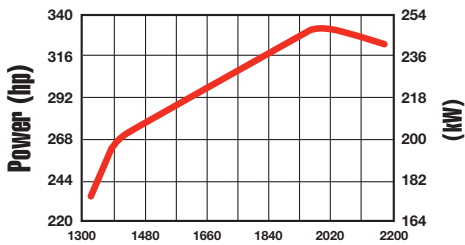
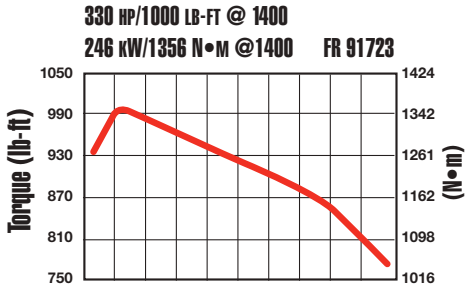
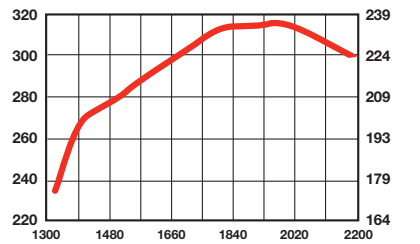
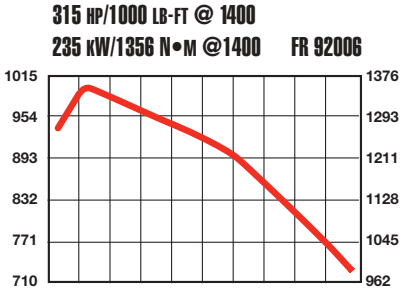
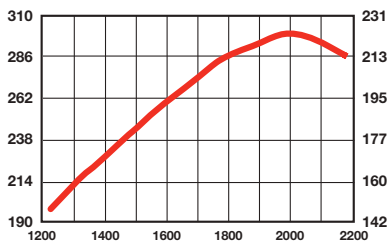
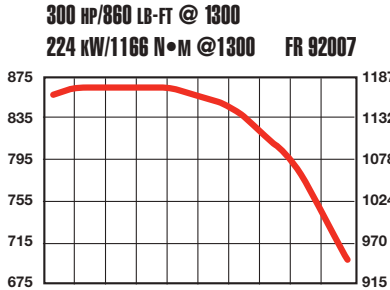
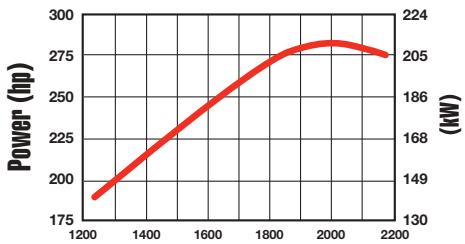
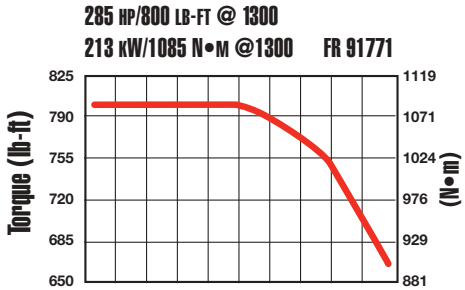
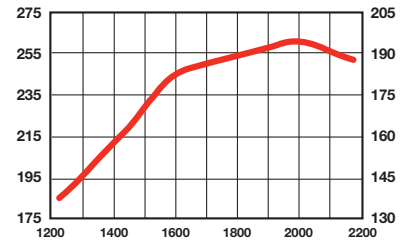
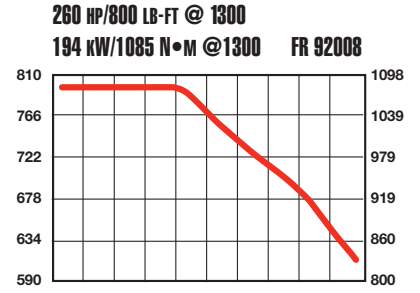
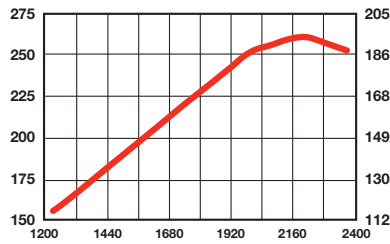
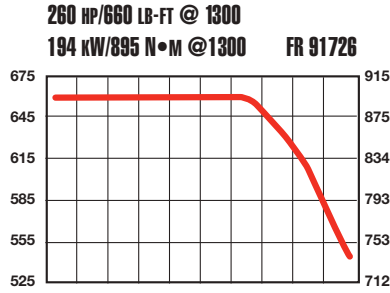
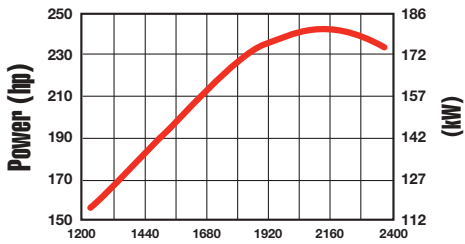
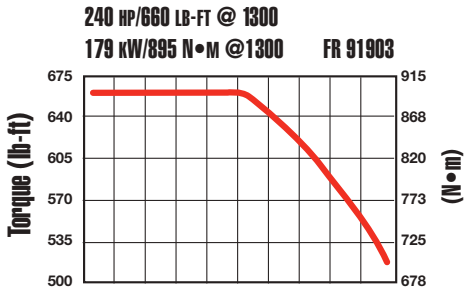


## Every Question. Answered.

- **Service Network** – Cummins engines are backed by nearly 3,500 authorized parts or service outlets in North America.
- **Customer Assistance Center** – Call the Cummins specialists for technical assistance, service locations and product literature at 1-800-DIESELS (1-800-343-7357).
- **Cummins E-Mail** – For online assistance to Cummins-related questions, click the Contact Us link in the header at [everytime.cummins.com](http://everytime.cummins.com).
- **Cummins Online Registration** – Register all your Cummins engines quickly and easily at [everytime.cummins.com](http://everytime.cummins.com) to ensure quality parts and service for your engine.



# ISC TORQUE AND POWER CURVES.



Cummins is a pioneer in product improvement. Thus specifications may change without notice. Illustrations may include optional equipment.



**Cummins Inc.**  
**Box 3005**  
**Columbus, IN 47202-3005**  
**U.S.A.**

Phone: 1-800-DIESELS (1-800-343-7357)  
Fax: 1-800-232-6393  
Internet: [everytime.cummins.com](http://everytime.cummins.com)

Jacobs is a registered trademark of Jacobs Vehicle Systems.

Bulletin 4103858 Printed in U.S.A. Rev. 3/07  
©2007 Cummins Inc.