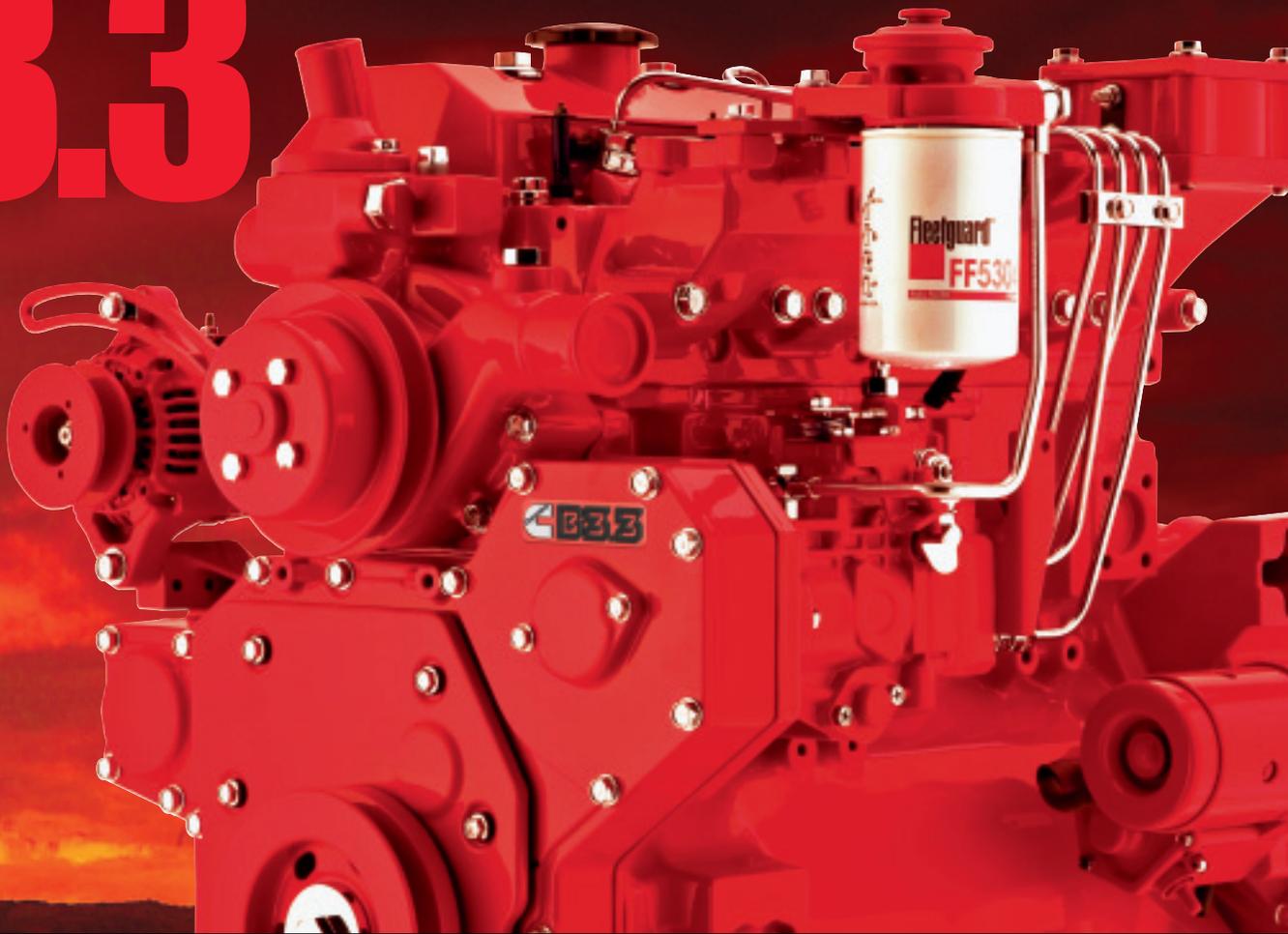




**EVERY™ SITE.**

**B3.3**



**FOR INDUSTRIAL APPLICATIONS  
TIER 3/STAGE IIIA**

# FOR INDUSTRIAL APPLICATIONS.

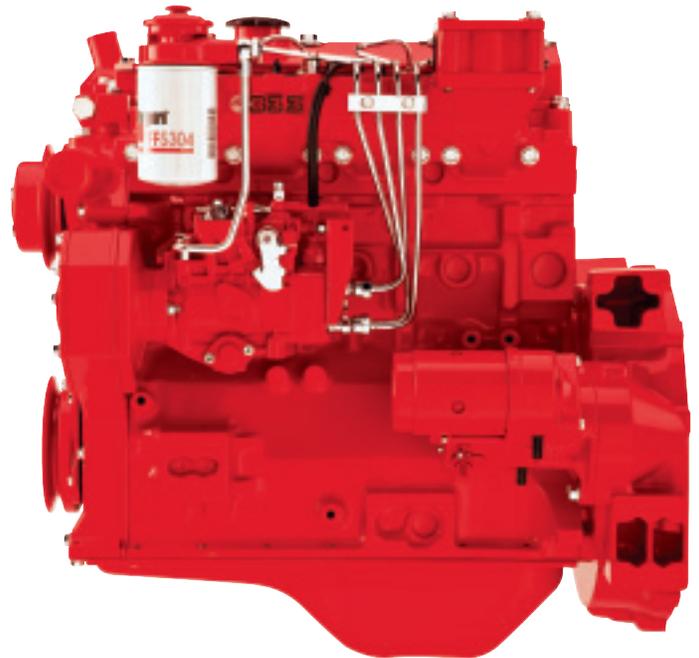
## B3.3

On the job site and in every installation, the Cummins B3.3 is designed for dependable, long-lasting performance. With ratings from 60 hp (45 kW) to 85 hp (63 kW) and 224 lb-ft (304 N•m) of peak torque, Cummins in-cylinder solution meets Tier 3/Stage IIIA emissions while maintaining a simple, compact and cost-effective design with great fuel economy for compact equipment – the right technology for anywhere in the world.

Cummins has made installation even easier with new options such as a rear-engine-mounted PTO and an available refrigerant compressor drive. It also shares the same installation footprint as the 80 hp (60 kW) to 110 hp (82 kW) QSB3.3, allowing the OEM to engineer one basic installation through a higher power band. This offers the potential of a product lineup from 60 hp (45 kW) to 110 hp (82 kW) with virtually no modifications to the equipment.

Operators can spend more time working because of the industry-leading reliability and durability of the B3.3. Features like a strengthened cast-iron block and a forged-steel crankshaft, camshaft and connecting rods make the B3.3 the most reliable engine in its class. With service intervals up to 500 hours using low-cost CH-4/ACEA E5 oil, maintenance costs are kept to a minimum.

Whether you manufacture skid steers, forklifts, turf equipment, telehandlers, compact tractors, pumps, compressors, gensets, road compaction or ground support equipment, Cummins B3.3 meets all your equipment needs.



### Ratings

ENGINE MODEL	ADVERTISED HP (KW) @ RPM	PEAK TORQUE LB-FT (N•M) @ RPM	TORQUE RISE
B3.3 85	85 (63) @ 2600	224 (304) @ 1600	31%
B3.3 80	80 (60) @ 2200	224 (304) @ 1600	17%
B3.3 74	74 (55) @ 2600	209 (283) @ 1600	40%
B3.3 67	67 (50) @ 2100	177 (240) @ 1600	4%
B3.3 65*	65 (48) @ 2600	158 (214) @ 1600	21%
B3.3 60*	60 (45) @ 2200	158 (214) @ 1600	10%

\*Indicates natural aspiration. All others are turbocharged.

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

### Specifications

ADVERTISED HORSEPOWER	60-85 HP	45-63 kW
PEAK TORQUE	158-224 LB-FT	214-304 N•M
NUMBER OF CYLINDERS	4	
OIL SYSTEM CAPACITY (NA)	8.0 U.S. QT	7.5 L*
OIL SYSTEM CAPACITY (TURBO)	8.5 U.S. QT	8.0 L*
LENGTH	27.7 IN	703.4 MM
WIDTH	22.8 IN	580 MM
HEIGHT	31.7 IN	804.9 MM
WET WEIGHT	606 LB	275 KG

\*L = Liters/litres

## Features And Benefits.

- A strengthened cast-iron block and a forged-steel crankshaft, camshaft and connecting rods for heavy-duty durability
- An isolated valve cover for reduced noise
- Low rotating inertia (30% less than industry average) for reduced vibration
- Left- or right-side service options for easy maintenance
- Intake heater and other cold-start aids

## Options.

- Refrigerant compressor drive for easier installation
- Rear Engine PTO SAE "B" featuring 210 N•m (155 lb-ft) at 1:1 drive ratio
- Fan height and drive ratios for exceptional installation flexibility
- SAE "A" PTO mounting option with engine-mounted gear-driven designs capable of 110 N•m (82 lb-ft) – front-mounted crank PTO generates 100% torque for hydraulic applications
- SAE #3 or #4 flywheel housings
- Auxiliary pump drive
- 10" (254 mm), 10.5" (267 mm) or 11" (279 mm) clutch interfaces
- Engine balancer for smooth, more refined running
- Structural oil pan
- Remote oil and fuel filters

## Maintenance Intervals.

Cummins B3.3 engines are designed to provide maximum value with low maintenance and easy service. Maintenance intervals of up to 500 hours are available, dependent upon the duty cycle and application of each piece of equipment. For complete maintenance information, refer to the Cummins B3.3 Operation and Maintenance Manual.

## The Cummins Installation Advantage.

Cummins provides a complete package of services and software to help OEM engineers integrate and optimize B3.3 engines to their equipment. These include our own staff of application engineers, Advisor software and Web-based tools that provide timely assistance to manufacturers everywhere around the globe. This suite of products and services gives more engineering uptime, allowing the OEM staff to spend more time on their equipment and less on the engine.

The Cummins advantage starts with Cummins Advisor, a software tool that puts a virtual engineer on the OEM team. This program gives OEM customers the ability to model every installation for virtually every piece of equipment. After taking into account operating conditions, load factor and duty cycle, Advisor guides the user to the best engine and rating match for the equipment. Advisor then builds a virtual model of the intake, exhaust, cooling, fuel and mounting systems to ensure compatibility with other subsystems. If there is a potential issue, Advisor lists alternate options calculated to achieve the performance goals you and your customers expect. This analysis-led approach validates your engine design before you even build a prototype, saving you time and money in the preproduction phase. Most important, it results in equipment that is fully capable of meeting customer expectations – every time.





## **The Cummins Service Advantage.**

When you install a Cummins B3.3 engine in your equipment, your customers benefit from the most comprehensive customer support in the world.

Cummins has over 5,500 authorized service outlets worldwide, more than any other engine manufacturer, each with a full inventory of Genuine Cummins new and ReCon® parts in stock.

For customers who prefer to do business online, our QuickServe® Online web site ([quickservice.cummins.com](http://quickservice.cummins.com)) is available 24/7 with parts-ordering information, service bulletins, engineering diagrams and more.

Every one of our B3.3 engines is backed by a comprehensive Cummins warranty that covers all Cummins branded components, including electrics such as starters and alternators, and is good for unlimited hours during the first year and 2,000 hours (cumulative) through the second. Major components are covered for up to three years or 10,000 hours of operation from the date your customer's B3.3-powered equipment goes in service.

For customers who want additional protection, we offer Encompass extended coverage plans that include both parts and labor for B3.3 engines. Contact your Cummins distributor or dealer for details.

When your customers have engine-related questions, our Customer Assistance Center is readily available to provide technical assistance, help locate service outlets and provide product literature. Here are the toll-free numbers for each region:

### **North America**

1-800-DIESELS (1-800-343-7357)

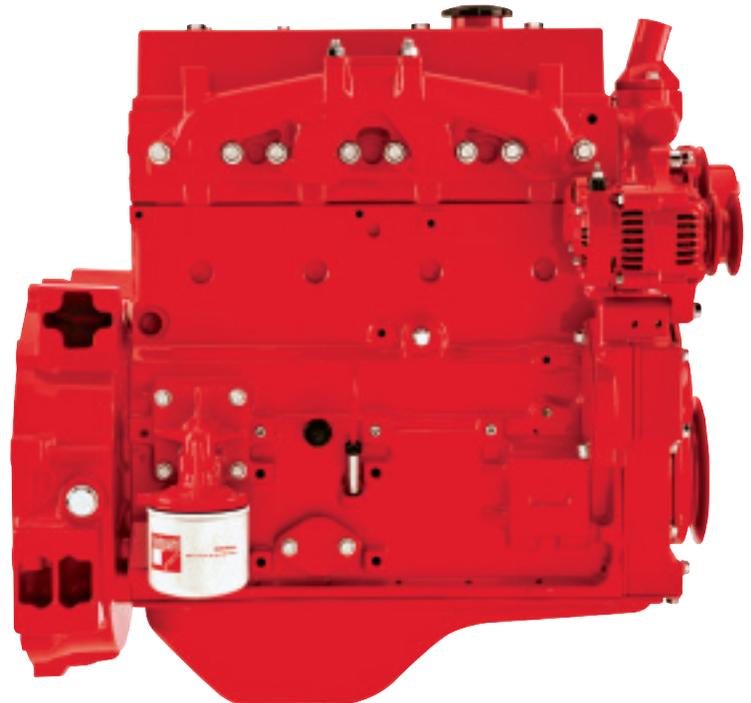
### **Europe, Middle East, Africa**

+44 (0) 1327 886464

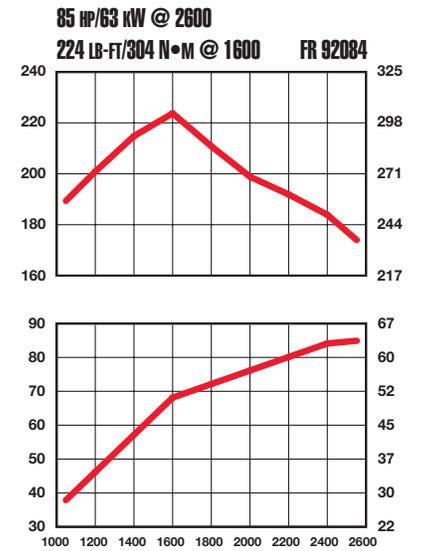
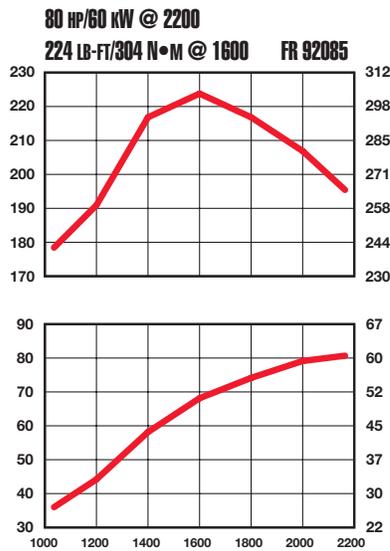
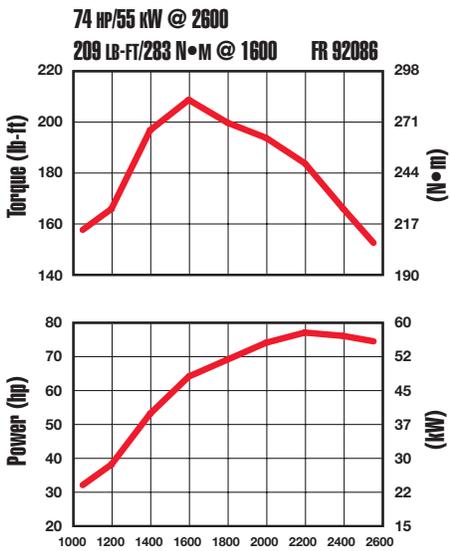
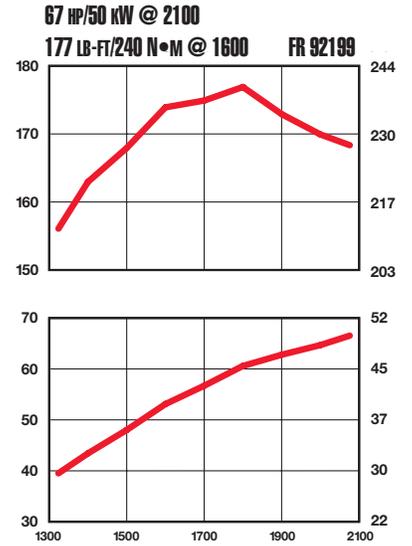
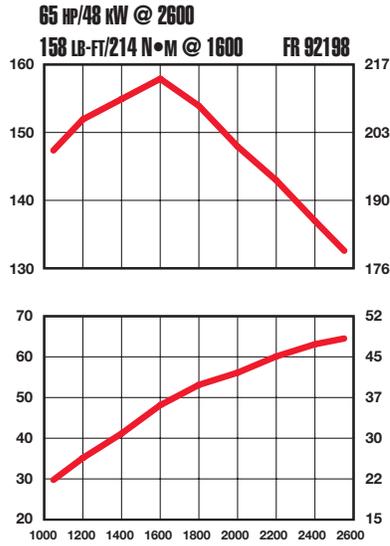
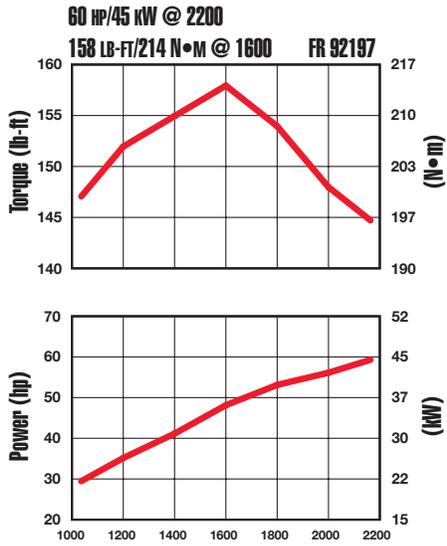
E-mail: [cabo.customerassistance@cummins.com](mailto:cabo.customerassistance@cummins.com)

We even make it easy for customers to register their engines at [everytime.cummins.com](http://everytime.cummins.com).

If you're looking to get every advantage for your customers, you can't do better than Cummins B3.3 engines.



# TORQUE AND POWER CURVES.



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



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**EVERY<sup>TM</sup> RULE. REWRITTEN.**

**QSB3.3**



**FOR INDUSTRIAL APPLICATIONS  
TIER 3/STAGE IIIA**

# FOR INDUSTRIAL APPLICATIONS.

## QSB3.3

Cummins new QSB3.3 doesn't just contradict conventional thinking about compact power – it rewrites the rules. The QSB3.3 delivers up to 110 horsepower (82 kW) in a much smaller and lighter package than any 4.0- to 4.5-liter engine. Plus, it has the inherent durability you've come to expect from larger Cummins engines.

With the QSB3.3, you get premium performance spanning the 80-110 hp (60-82 kW) range from a highly compact, economical engine. It combines the proven reliability of the B3.3 with the performance-enhancing capability of Cummins Quantum System electronic controls and a High Pressure Common Rail fuel system. Features such as auto-derate engine protection, rapid diagnostics, easier cold starts and faster load acceptance bring significant operating benefits. Just as important, the engine retains the fuel efficiency and minimal service requirements of the B3.3, offering the same low operating costs.

Not only does the QSB3.3 meet Tier 3/Stage IIIA emissions, it also sets new standards of engine sociability with exceptionally low noise and vibration. Cummins advanced in-cylinder combustion eliminates the need for complicated emissions solutions – and it is robust enough to operate safely on fuel with high sulfur content anywhere in the world.



### Ratings

ENGINE MODEL	ADVERTISED HP (KW) @ RPM	PEAK TORQUE LB-FT (N•M) @ RPM
QSB3.3 110*	110 (82) @ 2400	304 (412) @ 1400
QSB3.3 99	99 (74) @ 2600	304 (412) @ 1400
QSB3.3 99	99 (74) @ 2200	304 (412) @ 1400
QSB3.3 85	85 (63) @ 2600	274 (371) @ 1400
QSB3.3 80	80 (60) @ 2200	274 (371) @ 1400

\*Restricted rating.

All ratings are intermittent unless otherwise noted. Additional ratings may be available. Check with your Cummins distributor or dealer. All ratings are Tier 3 capable.

### Specifications\*

ADVERTISED HORSEPOWER	80-110 HP	60-82 KW
PEAK TORQUE	274-304 LB-FT	371-412 N•M
NUMBER OF CYLINDERS	4	
BORE AND STROKE	3.74 IN X 4.53 IN	95 MM X 115 MM
OIL SYSTEM CAPACITY	8.5-12.7 U.S. QT	8-12 L**
COOLANT SYSTEM CAPACITY***	4.9 U.S. QT	4.6 L**
ASPIRATION	CHARGE AIR COOLED	
LENGTH	27.7 IN	702 MM
WIDTH	24.3 IN	616 MM
HEIGHT	29.9 IN	760 MM
WEIGHT (DRY)	585 LB	265 KG

\*No customer options

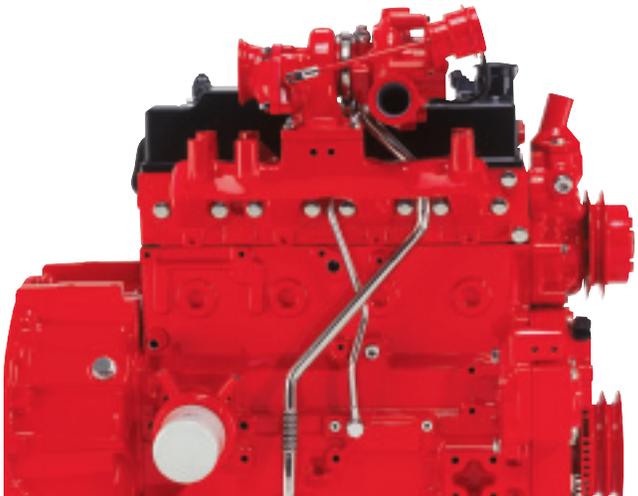
\*\*L = Liters/Litres

\*\*\*For engine only

## Features And Benefits.

The advanced features of the QSB3.3 provide many benefits whether you are powering a skid steer loader, forklift, aerial work platform, mini-excavator, backhoe loader, compaction equipment, sweeper, commercial mower, genset or welder:

- High Pressure Common Rail Fuel System – Dramatically reduces engine noise while providing more responsive power and better fuel efficiency at every rpm. The fuel system is capable of delivering high injection pressure of 800-1100 bar (11,600-16,000 psi).
- In-Cylinder Combustion Technology – Meets Tier 3/ Stage IIIA emissions standards without external components; is compatible with high-sulfur fuels for worldwide use.
- Heavy-Duty Durability – The camshaft, crankshaft and rods are all made of forged-steel, and the pistons are a one-piece aluminum design for strength and durability.
- Full-Authority Electronic Controls – Optimize engine performance and provide seamless integration with other components. Include advanced diagnostics.
- Cast-Iron Cylinder Block – Parent bore design with deep skirts and structural ribs to increase stiffness and resist torsional stresses.
- Two-Valve Crossflow Cylinder Head – Designed to improve breathing and resist thermal fatigue.
- Simple Wastegated Turbocharger – Wastegated for better low-speed performance and high-speed boost.



## Options.

The small footprint and compact size of the QSB3.3 make it an excellent fit for a wide variety of equipment.

Options for the QSB3.3 include:

- Fan height and ratio.
- SAE "A" PTO options.
- SAE #3 or #4 flywheel housings.
- Intake heater and other cold-start aids.
- One-side service capability.
- Hydraulic pump drive with your choice of tooth splines.
- Front or rear sump oil pan.
- And more.

See your local Cummins distributor or dealer for a complete listing.

## Maintenance Intervals.

Minimum maintenance has been designed into every QSB3.3 engine, with oil changes at up to 500-hour/ 6-month intervals. To make service even easier, the lube filter, fuel filter, oil fill (top or side) and dipstick can all be located on the same side.

## Cummins PowerMatch.

PowerMatch helps OEMs optimize engine performance to lower fuel consumption, increase operator satisfaction, improve equipment life and protect the customer's investment. Advanced electronics are used to enhance power curves and trim ratings, matching the duty cycle while taking into account work environment, load factors, ambient temperature and altitude. PowerMatch can also be used to create a unique torque curve, set up alternate torque curves, alternate governor settings or set up engine protection features.

## Cummins Advisor:

Advisor recommends the best engine and rating match for the equipment and operating conditions based on load factors, climates, duty cycle and equipment usage. It then builds a virtual model of the intake, exhaust, cooling, fuel and mounting systems. When Advisor identifies an issue, it lists acceptable alternatives. This allows changes while the equipment design is still “on paper,” ensuring optimum performance while minimizing costs.



## Base Warranty.

QSB3.3 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 3,000 hours of operation.



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.

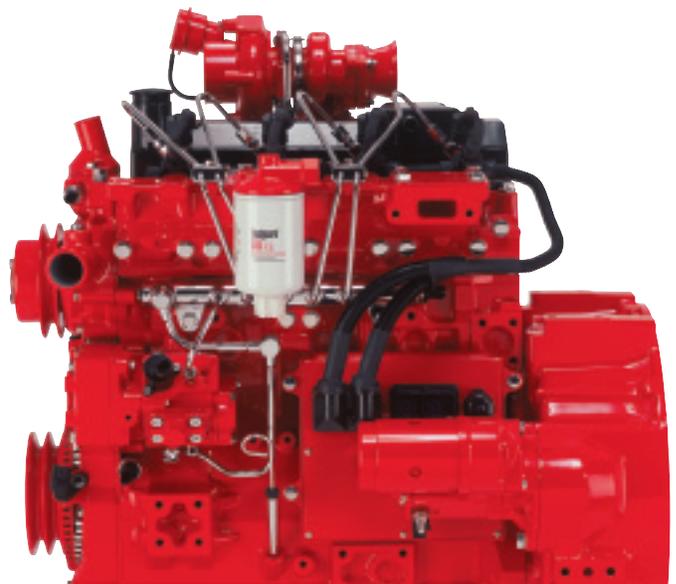
**Step Three:** Major components coverage including block, crankshaft, camshaft and rods on all products for the third year or up to 3,000 hours of operation. Total hours are cumulative from the time the engine goes in service.

## Encompass Extended Coverage.

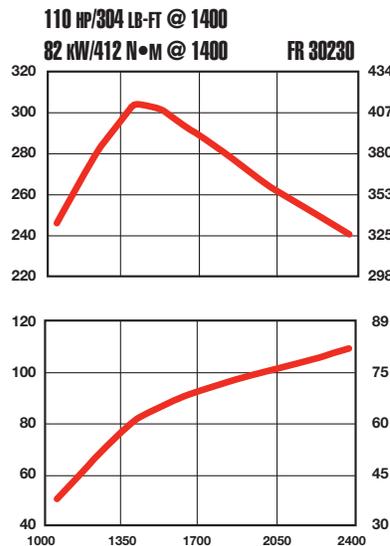
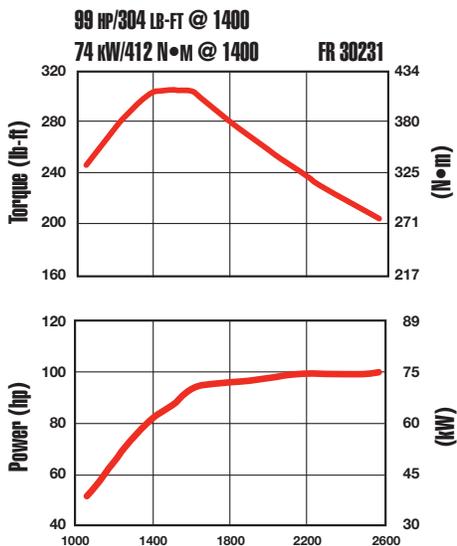
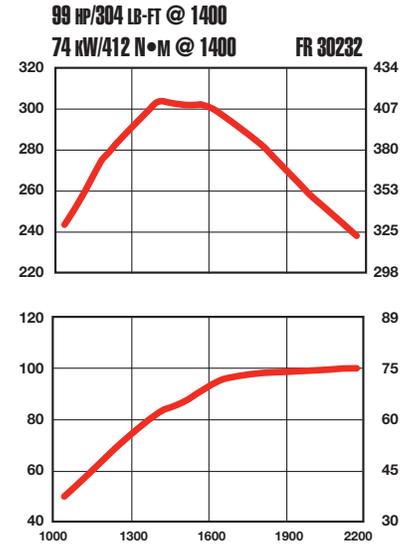
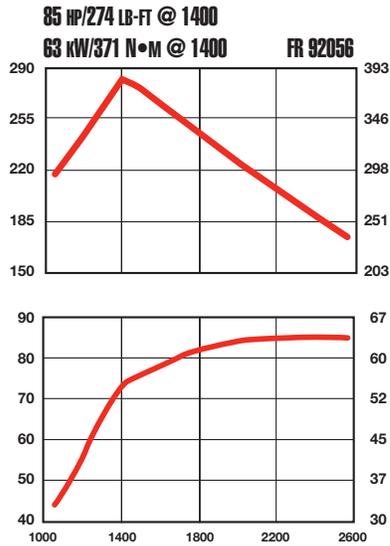
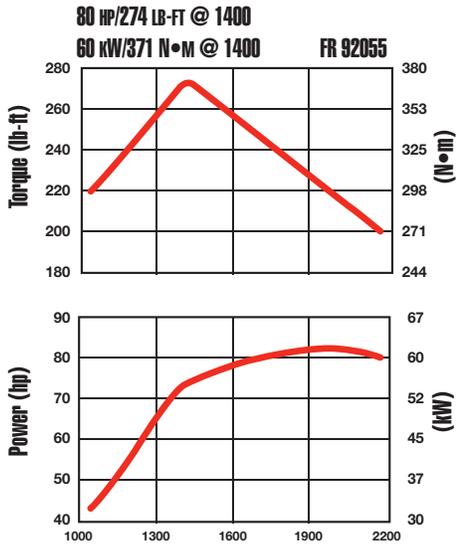
Encompass protection plans are available with your choice of 3-year/3,000-hour, 4-year/4,000-hour or 5-year/5,000-hour coverage options covering parts and labor. For additional details, please ask to see Bulletin 3624570.

## 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). For customers in Europe, the Middle East and Africa, call the Customer Assistance Center on +44 (0) 1327 886464 or e-mail to [cabo.customerassistance@cummins.com](mailto:cabo.customerassistance@cummins.com).
- Cummins E-Mail – For online assistance to Cummins-related questions, click on 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.



# TORQUE AND POWER CURVES.





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