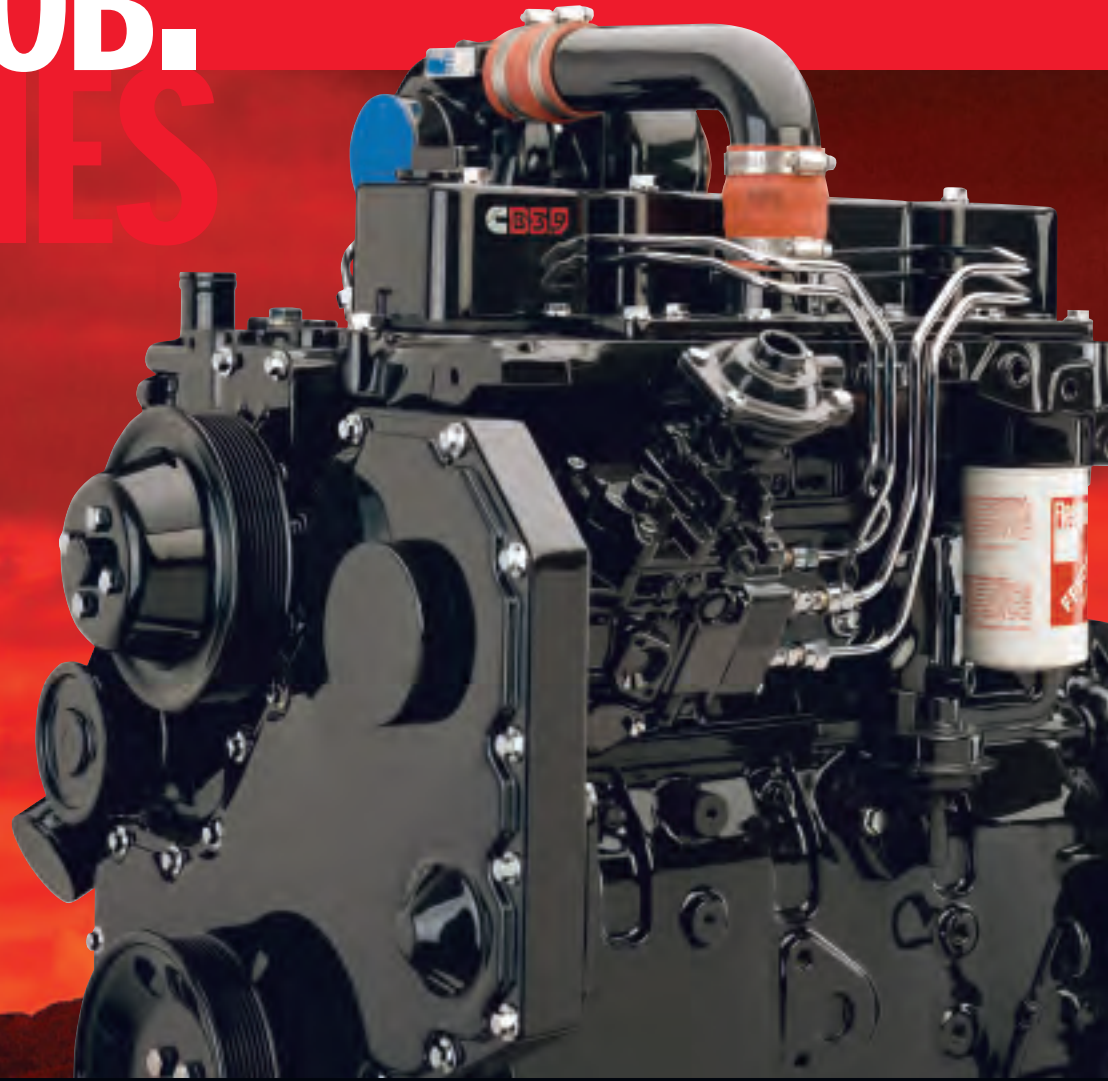




# EVERY JOB. B SERIES



**FOR OFF-HIGHWAY APPLICATIONS**

# FOR OFF-HIGHWAY APPLICATIONS.

## B SERIES

In every time zone and every work site, every farm and every forest, chances are good that you'll find Cummins B Series engines hard at work. Millions of B Series engines are currently in use, from paving compactors to telescoping material handlers, tractors to mobile generators. Our mechanical B Series engines are small enough to fit the equipment but big enough to handle the job. Highly reliable, durable rotary fuel pumps deliver a steady stream of pressurized fuel for strong performance across a wide range of environmental conditions.

Whether you need a low-horsepower engine with a flat torque curve or a little more horsepower with a sharp torque rise, you'll find it in a Cummins B Series. Three different models are available: the four-cylinder B3.9 and B4.5, plus the 6-cylinder B5.9.



### Ratings

ENGINE MODEL	ADVERTISED HORSEPOWER	PEAK HORSEPOWER	PEAK TORQUE	ASPIRATION
<b>B5.9</b>				
B5.9-173	173 @ 2500 RPM	173 @ 2300 RPM	530 LB-FT @ 1500 RPM	CHARGE AIR COOLED
B5.9-173	173 @ 2200 RPM	173 @ 2000 RPM	580 LB-FT @ 1300 RPM	CHARGE AIR COOLED
B5.9-165	165 @ 2500 RPM	165 @ 2300 RPM	500 LB-FT @ 1500 RPM	CHARGE AIR COOLED
B5.9-165	165 @ 2200 RPM	165 @ 2000 RPM	512 LB-FT @ 1500 RPM	CHARGE AIR COOLED
B5.9-152	152 @ 2500 RPM	152 @ 2300 RPM	466 LB-FT @ 1500 RPM	CHARGE AIR COOLED
B5.9-150*	150 @ 2200 RPM	150 @ 2000 RPM	467 LB-FT @ 1300 RPM	CHARGE AIR COOLED
<b>B4.5</b>				
B4.5-99	99 @ 2500 RPM	104 @ 2300 RPM	305 LB-FT @ 1500 RPM	TURBOCHARGED
B4.5-99	99 @ 2200 RPM	104 @ 2000 RPM	305 LB-FT @ 1500 RPM	TURBOCHARGED
B4.5-99	99 @ 2100 RPM	102 @ 2000 RPM	305 LB-FT @ 1500 RPM	TURBOCHARGED
B4.5-92*	92 @ 2200 RPM	97 @ 2000 RPM	300 LB-FT @ 1500 RPM	TURBOCHARGED
B4.5-80	80 @ 2500 RPM	85 @ 2300 RPM	222 LB-FT @ 1300 RPM	NATURALLY ASPIRATED
B4.5-80	80 @ 2200 RPM	80 @ 2100 RPM	217 LB-FT @ 1300 RPM	NATURALLY ASPIRATED
<b>B3.9</b>				
B3.9-125	125 @ 2200 RPM	125 @ 2100 RPM	373 LB-FT @ 1300 RPM	CHARGE AIR COOLED
B3.9-110	110 @ 2500 RPM	110 @ 2300 RPM	346 LB-FT @ 1500 RPM	CHARGE AIR COOLED
B3.9-110*	110 @ 2200 RPM	110 @ 2000 RPM	365 LB-FT @ 1300 RPM	CHARGE AIR COOLED

\*Indicates a continuous rating.

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

### Specifications

	B3.9	B4.5	B5.9
ADVERTISED HP	110-125 HP 82-93 kW	80-99 HP 60-74 kW	150-173 HP 112-129 kW
PEAK TORQUE	346-373 LB-FT 469-506 N•M	217-305 LB-FT 294-414 N•M	453-580 LB-FT 614-786 N•M
NUMBER OF CYLINDERS	4	4	6
OIL SYSTEM CAPACITY	11.5 U.S. QT 10.9 LITERS	11.5 U.S. QT 10.9 LITERS	17.2 U.S. QT 16.3 LITERS
WET WEIGHT	745-782 LB 338-355 KG	721-745 LB 327-338 KG	952-997 LB 432-452 KG
LENGTH	30.6 IN 777 MM	30.6 IN 777 MM	40.0 IN 1016 MM
WIDTH	24.6 IN 625 MM	24.6 IN 625 MM	24.9 IN 632 MM
HEIGHT	37.7 IN 958 MM	35.5 IN 902 MM	37.9 IN 963 MM

## Meeting Every Standard.

Cummins B Series engines meet all current Tier 2 standards and will achieve Tier 3 compliance with in-cylinder technology that maintains a compact, simple and cost-effective design solution.

Plus, Cummins B Series engines are designed for minimum noise output, so you can operate in high-density areas such as business or residential districts. For even quieter operation, Cummins offers optional noise reduction packages that eliminate up to 4.5 dBA of acoustic output.

## Features And Benefits.

Cummins B Series engines have been proven by millions of customers over the past 20-plus years. Design features include:

- Common Power Cylinder Technology – For reliability and reduced parts inventory.
- Plateau-Honed Cylinders – To virtually eliminate oil consumption.
- Parent Bore Cylinder Block – Structurally designed for reduced noise, increased durability.
- Forged-Steel Crankshaft – Built stronger to last longer.
- Holset Turbocharger – Wastegated design optimizes operation across the torque curve with improved response.
- Integrated Design – Eliminates potential leak points. Has 40% fewer parts than traditional diesels for superior reliability.
- Rotary Fuel Pump – Highly dependable and durable, it delivers a steady stream of pressurized fuel for strong performance in every environmental condition.
- Edge-Molded Gaskets – Help reduce oil use.

## Options.

Cummins B Series engines are the ultimate in design flexibility, with literally hundreds of application options to satisfy the specific demands of virtually every piece of equipment in every kind of work environment.

These include:

- 12- or 24-volt electrical
- Flywheels
- Flywheel housings
- Starters
- Dipsticks
- Alternators
- Oil pans
- Air-handling options
- Cooling system options
- Fan drive options
- Accessory mounting options
- Noise reduction packages up to 4.5 dBA less acoustic output

## Torque Rise.

While peak torque is important, torque rise is equally critical to the operating capabilities of your equipment – and Cummins B Series engines deliver. The B3.9 gives you up to 45% torque rise while the B4.5 has a torque rise of up to 47%, and the B5.9 hits a torque rise of 48%.

## Cummins Advisor.

Getting every installation right – the first time – is what Cummins Advisor is all about. 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.



## Maintenance Intervals.

The combination of plateau-honed cylinders, an innovative ring pack design and edge-molded gaskets significantly reduces oil consumption while the integrated design of B Series engines eliminates leak points. So little or no top-off oil should be needed between oil changes that can be extended to 500-hour intervals.



## Warranty Coverage.

Cummins three-step coverage is one of the simplest and most comprehensive plans available for industrial equipment:



**Step One:** Full coverage on all Cummins industrial engines and branded components with unlimited hours during the first year of operation. Including 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 – whichever comes first. Total hours are cumulative from the time the engine goes in service.

## Extended Coverage.

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 service, or parts, service and travel coverage. B Series engines are available with up to seven years of coverage. No matter where your Cummins-powered equipment is going to be used, Cummins Encompass has you covered, around the clock and around the globe.

For additional details, please ask to see Cummins Bulletin 3624570.





## 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.

## 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.

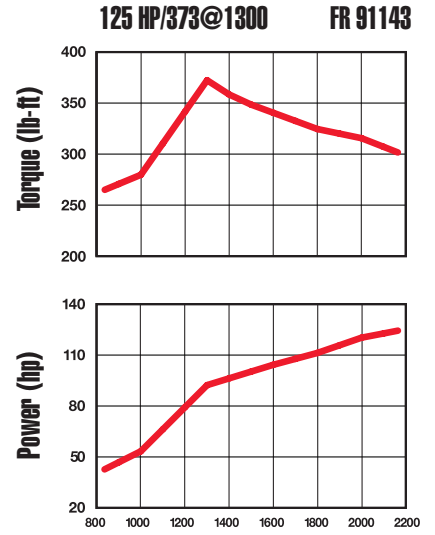
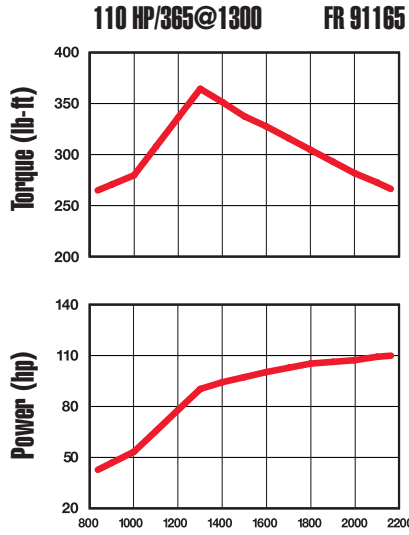
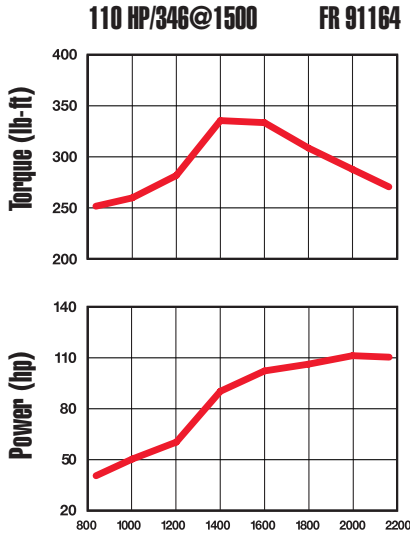
## Every Question, Answered.

- 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.

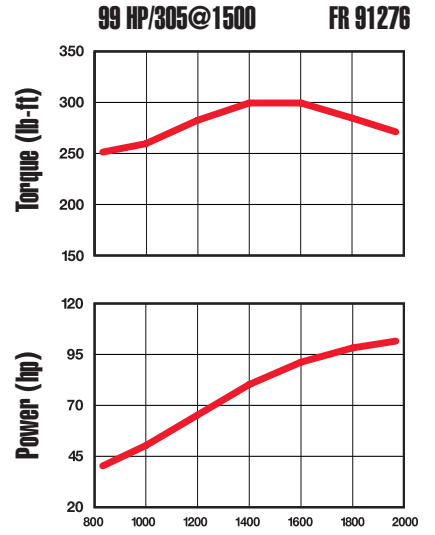
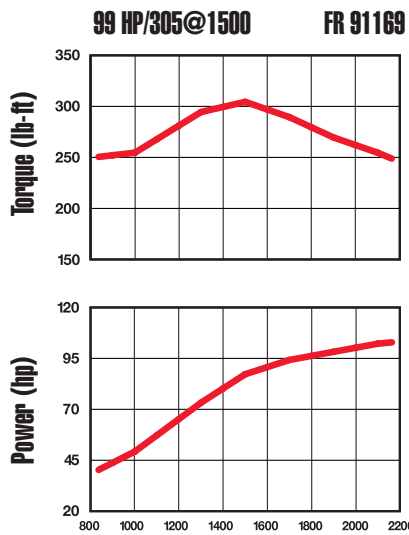
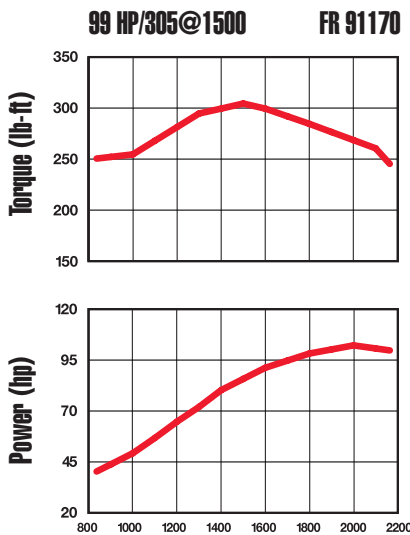
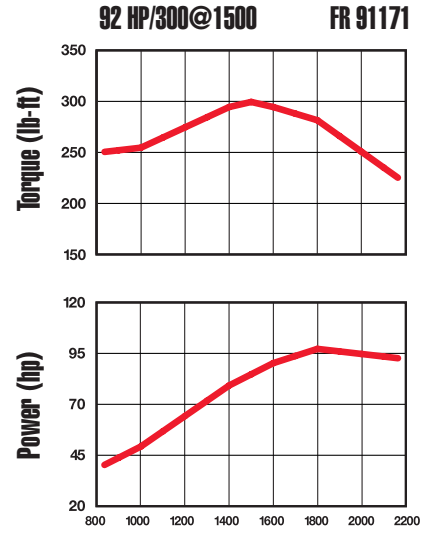
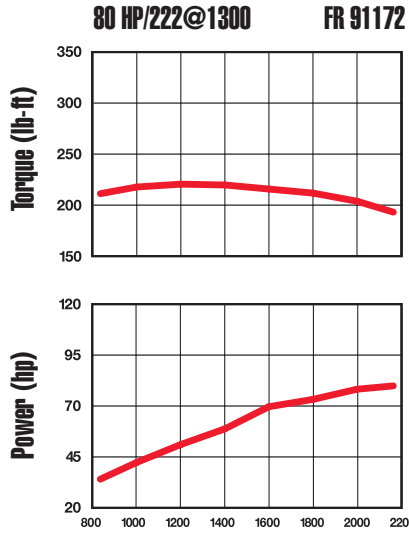
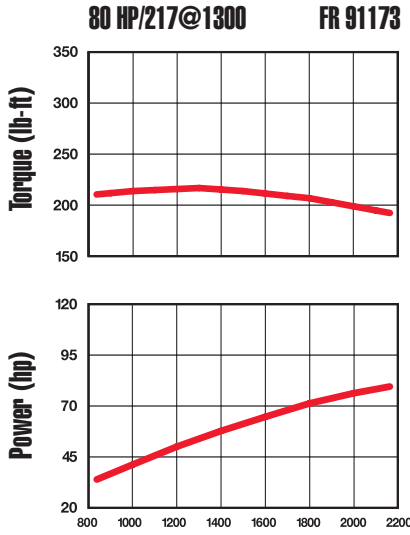


# TORQUE AND POWER CURVES.

**B3.9**

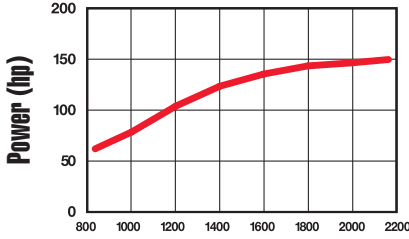
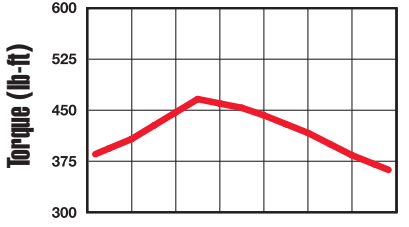


**B4.5**

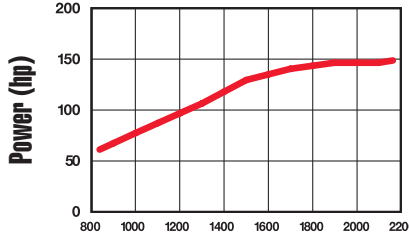
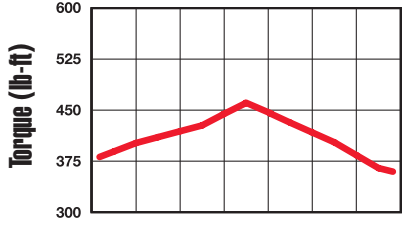


# B5.9

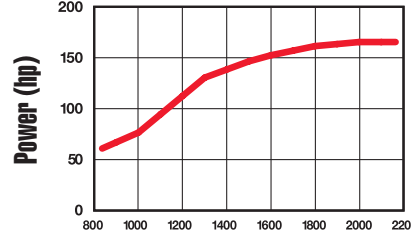
**150 HP/467@1300 FR 90875**



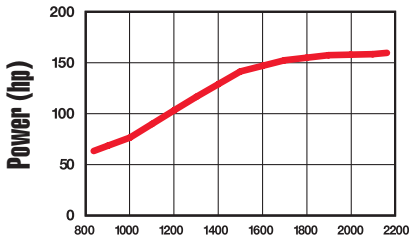
**152 HP/466@1500 FR 90874**



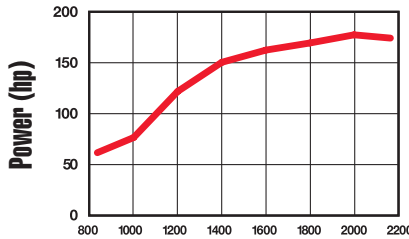
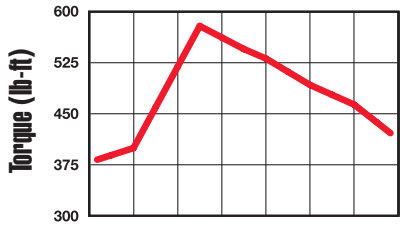
**165 HP/512@1500 FR 90872**



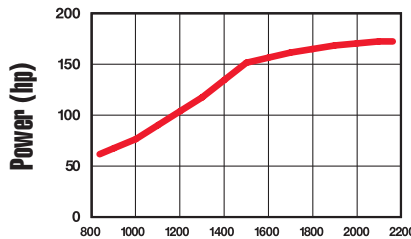
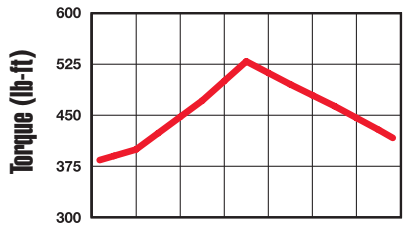
**165 HP/500@1500 FR 90871**



**173 HP/580@1300 FR 90870**



**173 HP/530@1500 FR 90869**





**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 4087025 Printed in U.S.A. 8/04  
©2004 Cummins Inc.