



EVERY[™] SOLUTION.



FOR INDUSTRIAL APPLICATIONS

Every Challenge. Met.

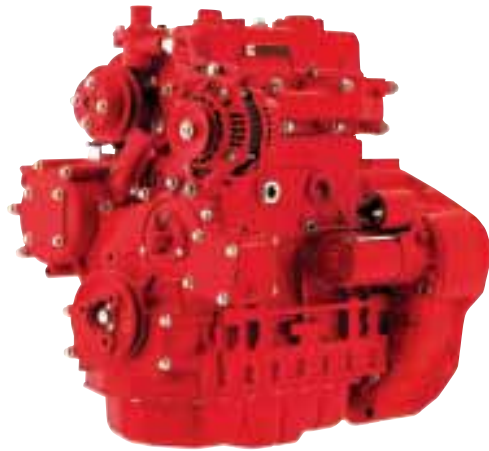
At Cummins, we continue to expand our range of diesel engine choices to meet the needs of equipment manufacturers and their customers. From our 31-hp (23 kW) A1400 to the 3500-hp (2611 kW) QSK78, Cummins has engines to fit equipment needs in every industry, including agriculture, construction, logging, oil and gas, rail, military, and both surface and underground mining.

We are the only manufacturer in the world to give you a choice of Tier 2-compliant mechanical and electronic fuel-injected engines from 3.9 through 8.3 liters. Plus, all our Quantum System engines are designed to run cleanly with a combination of sophisticated electronic controls and high-pressure fuel injection that lets us reach Tier 2, Tier 3, Stage II and Stage IIIA emissions regulations using in-cylinder technology. These engines do not need cooled EGR to be compliant today – and for years to come.

All are built with the strength and reliability that have made Cummins a leader for over 85 years. And all are fully backed by Cummins parts and service network – the world's largest. So you can spec Cummins power with complete confidence. Every time.

Cummins Diesels With Mechanical Controls.

At Cummins, we develop the right technology for each application. In many pieces of equipment, we meet the demand for clean, dependable power without the use of electronic controls. Our vast experience with sophisticated mechanical fuel injection systems results in engines that work reliably and efficiently, even in the most remote locations.

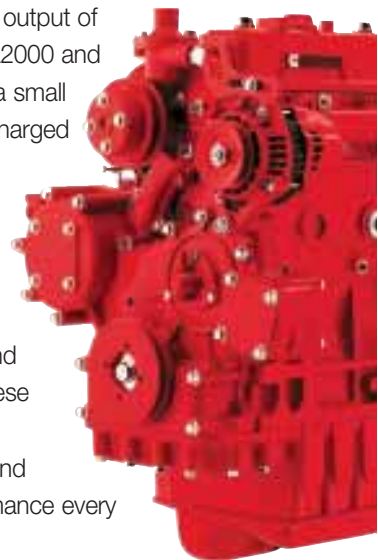


A1400/A1700 31-37 hp (23-28 kW)

The A1400 and A1700 are power-packed designs capable of generating high power in a very compact footprint, making them an excellent choice for space-constrained applications. These 3-cylinder engines feature single-side service, gear-driven dual hydraulic pump mounts, crank-mounted PTO and structural capability. Utilizing the same block and power cylinder technology as their 4-cylinder counterparts, Cummins A Series 3-cylinder engines are specifically designed to meet the unique needs of this power range.

A2000/A2300 45-60 hp (34-45 kW)

The high displacement and power output of the 4-cylinder naturally aspirated A2000 and A2300 engines offer big power in a small cost-efficient package. The turbocharged version of the A2300 provides an even higher power-to-weight ratio. All three engines feature single-side service, with three PTO attachment points, structural capability, a low-noise signature and integrated cold-start capability. These features, coupled with Cummins legendary standards for reliability and durability, result in superior performance every day, every month and every year.

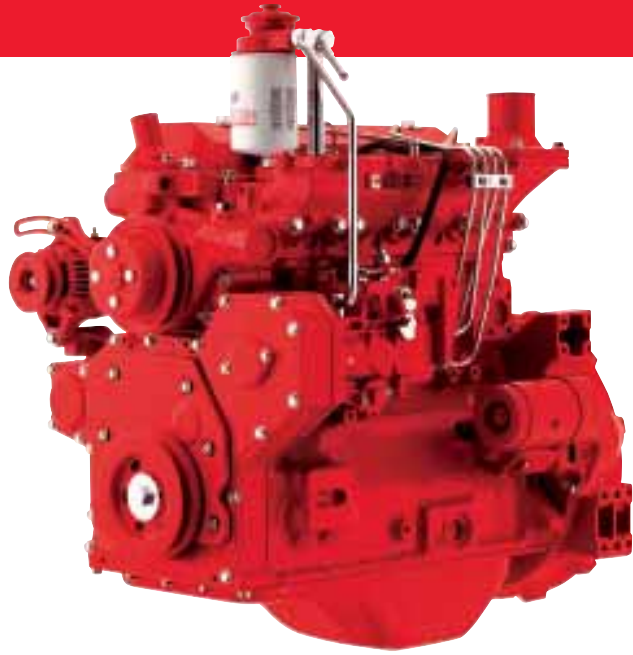


B3.3 60-85 hp (45-63 kW)

Your customers expect rugged durability and reliability from a Cummins engine – and the B3.3 delivers, every time. Precision engineering with exacting tolerances ensures smooth, efficient operation. Compact by design, the B3.3 footprint fits easily into equipment with space limitations. Plus, a wide selection of options makes installation simple in every application. Proven mechanical fuel injection delivers low fuel consumption as well as low emissions.

B3.9 110-125 hp (82-93 kW)

The 4-cylinder B3.9 shares a technology platform with Cummins 6-cylinder B5.9 – our most popular engine ever. The B3.9 delivers optimized performance across the power band. That makes it an excellent choice for every application where there's a critical need for big power in an efficient package.



B4.5 80-99 hp (60-74 kW)

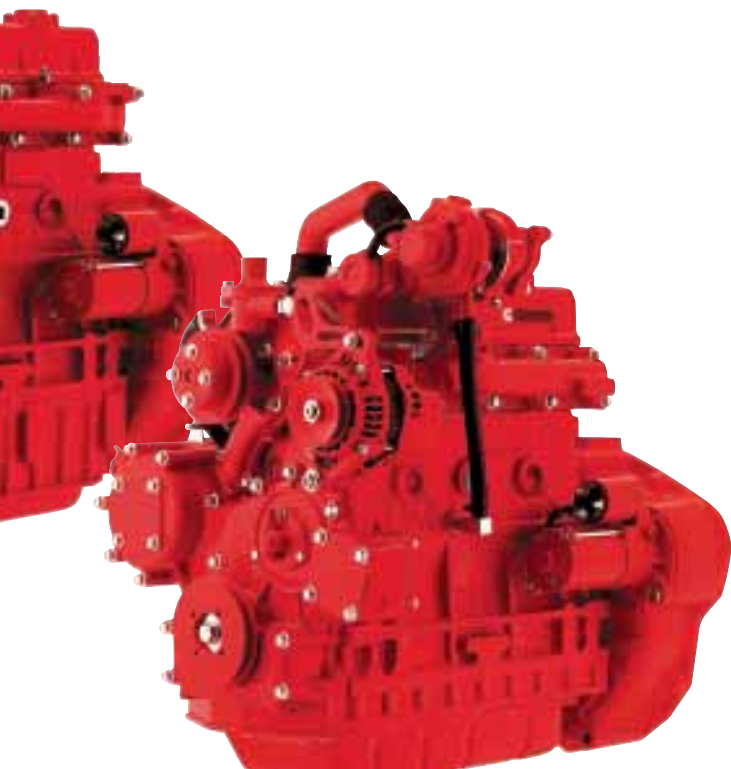
Identical in exterior dimensions to the B3.9 but with a longer stroke, the B4.5 has a different power curve and torque curve shape – for better low-end torque, plus a choice of natural aspiration or turbocharging. This design has been optimized for equipment requiring high torque levels across every rpm.

B5.9 150-173 hp (112-129 kW)

Cummins B5.9 engine has made a lot of customers very satisfied over the years. Over three million of them are currently in operation, from every major city to the world's most remote outposts. The unitized block design of this 6-cylinder power plant with mechanical fuel injection means that there are 40% fewer parts than traditional diesels. And, fewer parts mean greater reliability.

C8.3 150-260 hp (112-194 kW)

The C8.3 has become the workhorse of the construction, agriculture and logging industries – powering cranes, excavators, bulldozers and more. Today, there are over 750,000 C Series engines in operation everywhere around the globe in tractors, feller bunchers, knuckle boom loaders and more. You'll even find them in remote locations where diesel fuel is hard to get, because the engine's in-line fuel pump delivers higher injection pressures for cleaner combustion and allows the use of lighter-weight fuels such as Jet-A and kerosene.



Quantum System Engines.

Cummins Quantum System engines use proprietary electronic controls to manage everything from fuel delivery and power curve shaping to protection features and data management. All are designed to work with a common set of application and diagnostic software, to simplify engineering installation as well as servicing. These Quantum System engines deliver exceptional durability in the world's most demanding work sites. Plus, they are designed to meet every applicable emissions standard from Tier 1 to Tier 3, and Stage II to Stage IIIA with "in-cylinder" technology. So you can spec Cummins for years to come, with every assurance.

The Quantum System extends all the way from 4-cylinder and 6-cylinder models at 110-340 hp (82-254 kW) to our 18-cylinder QSK78. It includes our QSB, QSC and QSL engines, which now feature High-Pressure Common-Rail (HPCR) fuel injection for superior engine response and efficiency at every rpm.

4-Cylinder QSB 99-160 hp (74-119 kW)

The 4-cylinder QSB is virtually identical to the 6-cylinder QSB in electronic features, power cylinder technology, parent bore cylinder block, fuel injection, piston design and more.

All 4-cylinder QSB engines combine electronic controls with charge air cooling for greater durability and higher power output. This extra output makes them ideal for everything from telescoping lifts to mobile construction lighting to airport tractors.

6-Cylinder QSB 130-275 hp (97-205 kW)

The 6-cylinder QSB is an in-line design with full-authority electronic controls. It is available in 12-valve or 24-valve configurations. The 12-valve version of this engine combines powerful performance with cost effectiveness. All ratings are turbocharged and charge air cooled.

A High-Pressure Common-Rail (HPCR) fuel system delivers greater power (180-275 hp [134-205 kW]) at every rpm. Together with vertically centered fuel injection and a symmetrical cylinder bowl, it produces exceptional low-end torque and power with reduced emissions and increased fuel efficiency. Additional torque and faster throttle response make it the perfect choice for demanding applications such as tractors, wheel loaders and bulldozers.

QSC 240-340 hp (179-254 kW)

Powerful. Durable. Dependable. The QSC has every base covered. A High-Pressure Common-Rail (HPCR) fuel system gives the QSC exceptionally strong performance across the entire power band. The free-breathing 24-valve design gives customers bigger power and better fuel economy with lower emissions. Cummins QSC combines the proven strength of the C Series engine with state-of-the-art electronic controls. The result is a high-performance engine that delivers high productivity, in every type of demanding work environment.



Heavy-Duty Engines 245-600 hp (183-448 kW)

When there's a big job to be done, you need big equipment and big power. Whether you are plowing a thousand-acre farm, loading tons of gravel into a truck or drilling for oil, Cummins Quantum System engines have the muscle you need from the QSL to the QSX.

QSL 250-350 hp (187-261 kW)

The QSL combines a patented High-Pressure Common-Rail (HPCR) fuel injection system with full-authority electronics for superior low-end performance with a strong torque rise. The 24-valve design and a Holset turbocharger produce up to 350 horsepower (261 kW) from an 8.9-liter engine that weighs 500 pounds (227 kg) less than the 10- and 11-liter engines it replaces.

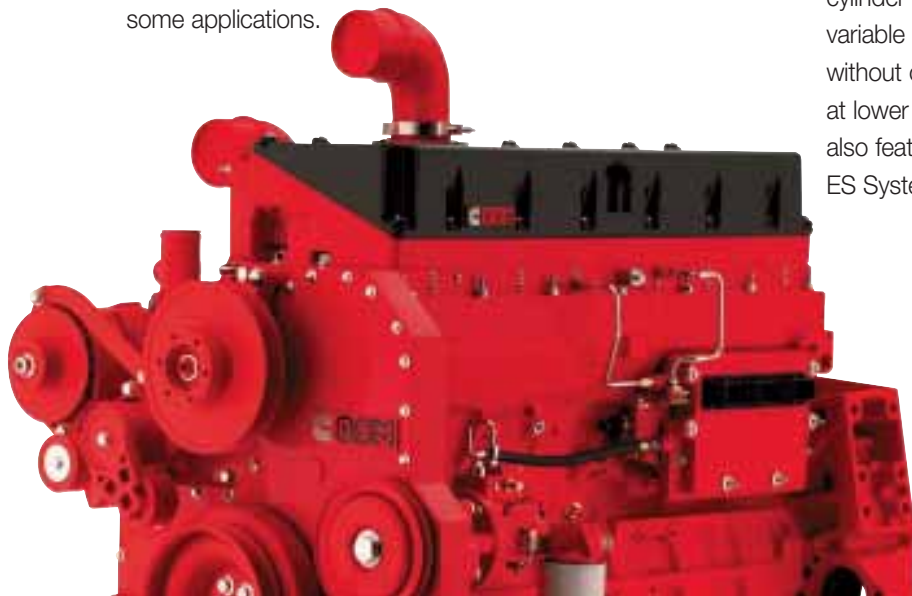
QSM 245-415 hp (261-310 kW)

One of the highest productivity engines on any job site today. The high-capacity electronic control system provides superior fuel economy with strong engine performance, engine protection and other programmable features. Articulated-steel pistons deliver 30% longer life, while a combination full-flow and bypass oil filter reduces maintenance. Oil change intervals have been increased up to 700 hours in some applications.



QSX 350-635 hp (261-195 kW)

The QSX features dual overhead cams for superior performance and engine braking. The first cam drives up to 30,000 pounds per square inch of fuel injection for cleaner, more powerful combustion. The second cam operates the intake and exhaust valves, with a separate set of lobes specifically designed to operate the totally integrated Intebrate™ capable of up to 600 brake horsepower (448 kW). Improved power cylinder components provide up to 40% longer life before cylinder wear out. A patented wastegated turbo with variable step settings delivers maximum performance without overboost at high speeds and increased airflow at lower speeds for improved responsiveness. The QSX also features reduced maintenance, with Fleetguard® ES System™ oil and fuel filters for 625-hour intervals.

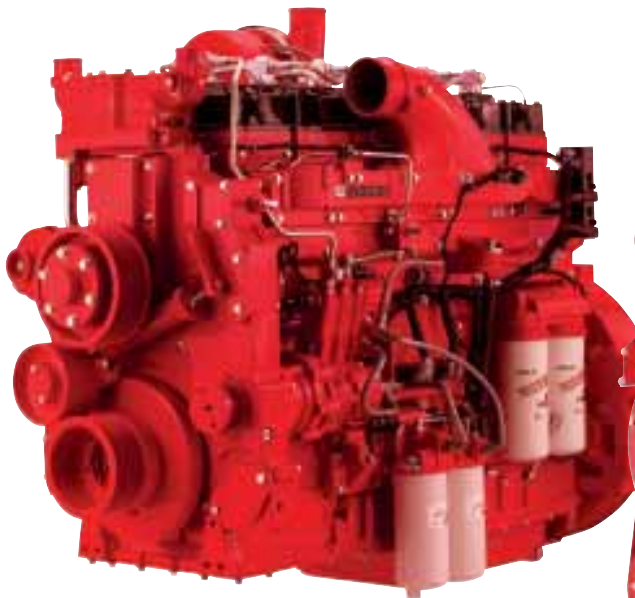


High-Horsepower Heavy-Duty Engines 450-3500 hp (336-2611 kW)

The bigger they are, the harder these Cummins engines work. Heavy-duty components combine with advanced electronics to let you extend maintenance intervals safely, so you get more hours on the job with less downtime for maintenance. From shovels and oil drills to loaders and haul trucks carrying 300 tons or more, there's a Cummins engine that makes every ton count and achieves your productivity goals.

QSK19 450-800 hp (336-597 kW)

Powerfully built with articulated-steel pistons and an extra-wide gear train, the QSK19 is a productivity leader in every kind of mine site around the world. Programmable electronic controls optimize combustion and fuel economy and are easily accessed for engine monitoring, diagnostics and reporting with Cummins information management software. A combination full-flow and bypass oil filter improves filtration as it reduces hazardous waste removal costs.



QSK23 760-950 hp (567-709 kW)

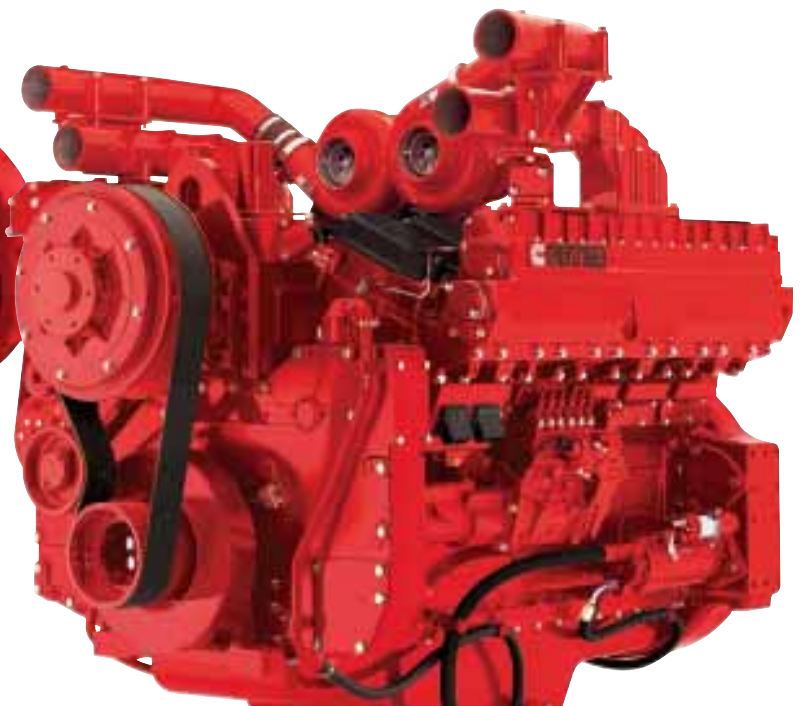
The QSK23 draws upon the proven performance of the QST30 and QSK78 – using the same power cylinder design and common electronic engine controls. High-pressure fuel injection and sophisticated air-handling systems give the QSK23 the ability to perform at high altitudes without derate. In addition to its high power density, economical operation and exceptional uptime, the QSK23 meets every current EPA and Euro standard for Tier 1, and will meet Tier 2 with minor modifications.

QST30 750-1250 hp (560-933 kW)

The QST30 is built to withstand the worst working conditions on earth. Ductile iron pistons allow higher horsepower to handle high heat and heavy loads. A swirl-port cylinder head reduces emissions and increases low-end torque for more power to get you out of the hole. And a Prelub starter eliminates dry starts, reducing wear and increasing the life-to-rebuild.

K2000E 2000 hp (1492 kW)

The block configuration for this engine is a V16 diesel power plant. CENTRY™ electronic engine management combines with two-stage Holset turbocharging to deliver high performance even at high altitudes (up to 12,000 ft).



QSK45 1200-2250 hp (895-1679 kW)

The QSK45 combines the durability of Cummins K Series with a sophisticated electronic control system and CENSE™ engine monitoring. This 12-cylinder engine features ductile iron pistons, a 38% larger camshaft (for multiple rebuilds) and an extra-wide gear train with high-contact ratio spur gears to handle higher load factors with greater durability.

QSK50 1400-2100 hp (1044-1567 kW)

The V16 design of the QSK50 combines the legendary durability of the Cummins K50 with the strength of single-piece ferrous cast ductile iron pistons that provide a 10% longer life-to-overhaul compared to two-piece pistons. A modular common-rail fuel system maintains high injection pressures for exceptional performance at every rpm. Full-authority electronic controls provide complete engine monitoring, automatic adjustment for peak performance and fuel efficiency, lowering your cost-per-ton. Advanced Engine Monitoring lets you view equipment performance on the job, in real time, on a cylinder-by-cylinder basis using mining dispatch systems or over the Internet at MiningGateway.com. Plus, the QSK50 meets Tier 2 emissions standards using advanced in-cylinder technology.

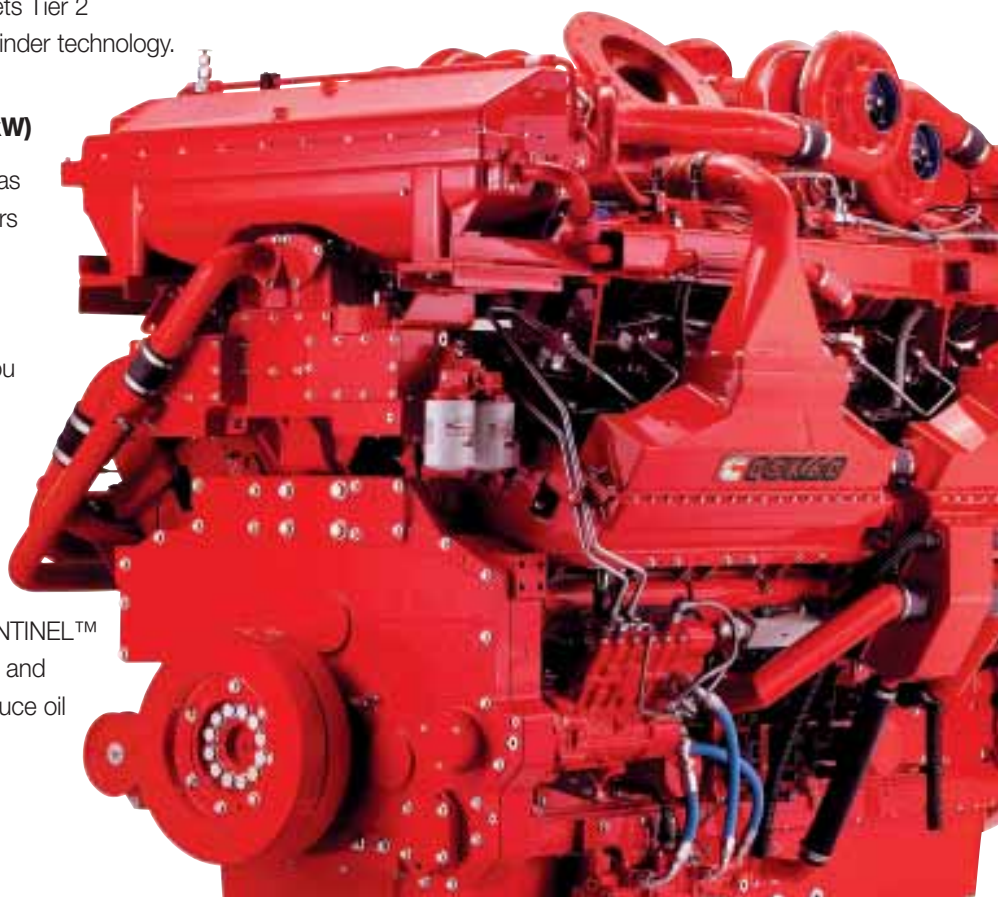
QSK60 1600-2700 hp (1194-2014 kW)

The QSK60 has the same design features as the QSK45, but with four additional cylinders and your choice of single- or two-stage turbochargers. These turbos feature low-temperature aftercooling for exceptional durability. CENSE engine monitoring lets you “see” how every cylinder is performing as your equipment works, helping you keep preventive maintenance at a minimum without risking engine damage. A standard Prelub system eliminates start-up wear and tear and increases life-to-overhaul. Additional available options include the CENTINEL™ Advanced Engine Oil Management System and ELIMINATOR™ oil filtration system that reduce oil and filter changes by one-third.

QSK78 3500 hp (2611 kW)

It's one of the largest engines in the mining industry. 18 cylinders. 78 liters. 3500 horsepower. An air-handling system that lets the QSK78 work at any altitude without derate. Standard features include the CENTINEL Advanced Engine Oil Management System and ELIMINATOR filtration system that reduce oil and filter changes by one-third. A standard Prelub system that eliminates start-up wear and increases life-to-overhaul. Plus CENSE onboard monitoring of engine performance on a cylinder-by-cylinder basis. Information that you can view over the Web at www.MiningGateway.com.

Every QSK78 also comes with a free year of Cummins QuickServe ProAct™. An entire team of mining experts monitor engine and vehicle performance data, identifying trends and helping you optimize maintenance schedules. The QSK78 sets a whole new standard for mining customers everywhere the world over.



Cummins PowerMatch.

PowerMatch helps OEMs optimize engine performance so you can lower fuel consumption, increase operator satisfaction, improve equipment life and protect the customer's investment. PowerMatch tailors engine performance to specific equipment models and applications. Advanced electronics are used to enhance power curves and trim ratings, matching the job the equipment will be doing while taking into account variables such as 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. Turn on the Boost Power feature, and the equipment user gets an extra burst of power needed to get through tough spots – but only for as long as needed – so fuel economy and durability are not compromised. Because PowerMatch allows for immediate field testing of new calibrations, application engineers can quickly develop the optimum calibration for every customer.

Cummins Advisor:

Getting every installation right is what Cummins Advisor is all about. Advisor puts a virtual engineer on the OEM team, allowing the OEM to focus on machine requirements instead of engine requirements. This shortens engineering cycle times and cost. Cummins Advisor models equipment installation for exceptional productivity, reliability and durability.

After a comprehensive review of load factors, climates, duty cycle and equipment usage, Advisor recommends the best engine and rating match for the equipment and operating conditions. 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 approach allows changes while the equipment design is still “on paper,” ensuring optimum performance while minimizing costs – every time.

INSITE™ And INFORM.™

Cummins INSITE software makes every service technician's job easier. Not only does it include step-by-step engine diagnostics, it includes built-in drawings and diagrams to improve troubleshooting and repair accuracy.



INFORM extracts raw data from your ECM and converts it into useful reports on everything from fuel use to operator performance. It creates exception and comparison reports, and even lets you break the data down by fleet, subfleet, operator, equipment and time period. This detailed analysis can help you improve efficiency, reliability and safety.

Cummins QuickServe.®

Cummins QuickServe is dedicated to performing fast, accurate maintenance and repair services – using quality Genuine 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.

*\$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.

MiningGateway And QuickServe ProAct.

At www.MiningGateway.com, every Cummins mining customer will find the engine, maintenance and industry information they need to succeed. MiningGateway is the first site that lets them see specific information about engines running in their mining equipment over the Internet. Click on "My Engines" to view an example.

In addition to "My Engines," Cummins also offers QuickServe ProAct, which gives you daily monitoring of your engines by mining engine experts at a per-hour fee (free for the first year with any QSK78). Our specialists review cylinder-by-cylinder performance, tracking trend data and going beyond preventive maintenance to proactive maintenance. In the event a fault code is registered, our QuickServe ProAct team contacts the local Cummins distributor with their troubleshooting analysis and recommended repair actions. Before your customers even know there's a problem, we're working on a solution.

Base Warranty.

Every Cummins industrial engine is covered by Cummins 3-step warranty, one of the most comprehensive and simplest plans anywhere.

There are just three easy steps:

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.

See Bulletin 3381321 for details.

*Cummins A Series engines have major components coverage for 3 years or 3,000 hours, whichever comes first.



Encompass Extended Coverage.

Wherever your equipment operates, Encompass protection plans cover it. Options include three to five years of extended coverage for most Cummins industrial engines.

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. Encompass extends your coverage around the clock and around the globe. Ask your Cummins dealer or distributor for details.

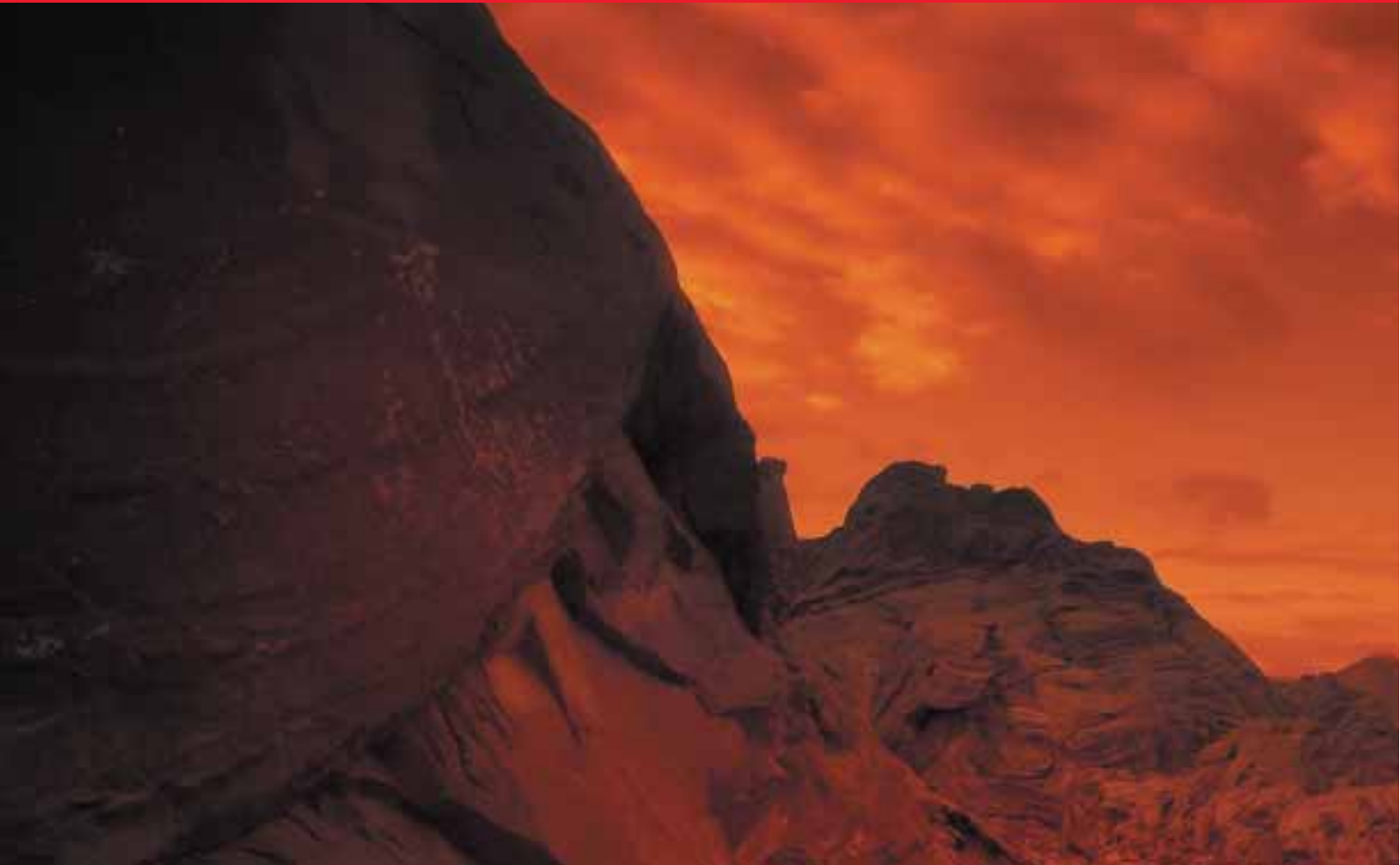
Every Detail. Cummins QuickCheck III.

Cummins QuickCheck III* together with your handheld PDA device, reads and captures engine data quickly and conveniently from every Cummins electronic diesel engine or other engines you run (via J2587 and J1939). Use it to check everything from fuel burned to coolant temperature to boost pressure. QuickCheck III even logs fault codes, which can be used with Cummins INSITE to get detailed instructions for faster repair.

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

Every Question. Answered.

- Service Network – Cummins engines are backed by a global network of over 5,500 service locations.
- 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 +44 (0) 1327 886464 or e-mail to cabo.customerassistance@cummins.com.
- Cummins E-Mail – For online assistance to Cummins-related questions, click on the Contact Us link in the header at www.everytime.cummins.com.
- Cummins Online Registration – Register all your Cummins engines quickly and easily at www.everytime.cummins.com to ensure quality parts and service for your engine.



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