



Ready For More. Underground.
Underground Mining Engines.



The Right Choice For Underground Mining Equipment.

Cummins mining engines are designed to deliver exceptional dependability, reliability and productivity for your site. Our products are designed specifically to fit underground equipment profiles, with easy maintenance access and extended service intervals. Our priority is to make sure that every Cummins engine meets or exceeds the world's toughest standards, to keep your operation as clean, and your cost-per-ton as low, as possible.

Our underground mining engines continue to support our leadership in all types of mining equipment so you get the exact power you need with the exact ventilation rate that your mine requires. From the naturally aspirated 49-hp (37 kW) QSF2.8 to the turbocharged and aftercooled 760-hp (567 kW) QSK19, Cummins engines are capable of meeting performance and emissions requirements for your underground mine. Many of our engines are certified by the Mine Safety and Health Administration (MSHA) and CanmetMINING.

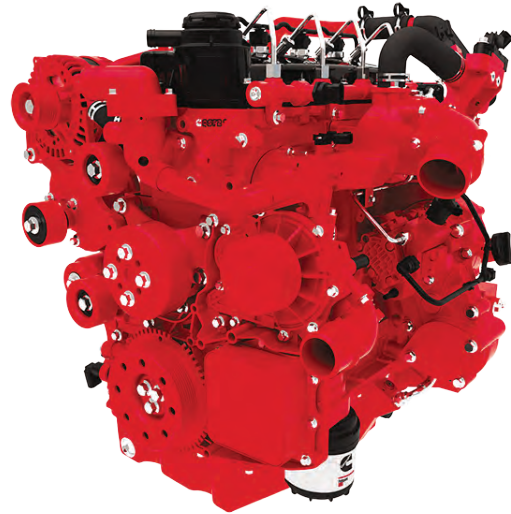
Many leading underground mining equipment manufacturers specify powerful, compact Cummins engines in everything from dusters and rock breakers to personnel transports, roof bolters, drills, trucks and loaders.

Whether you're mining salt, coal, diamonds or silver, you can depend on Cummins engines to keep your operation running efficiently and cleanly.



More Power.

Cummins offers a full range of clean-burning, emissions-certified engines sized to fit your equipment and your underground mining applications.



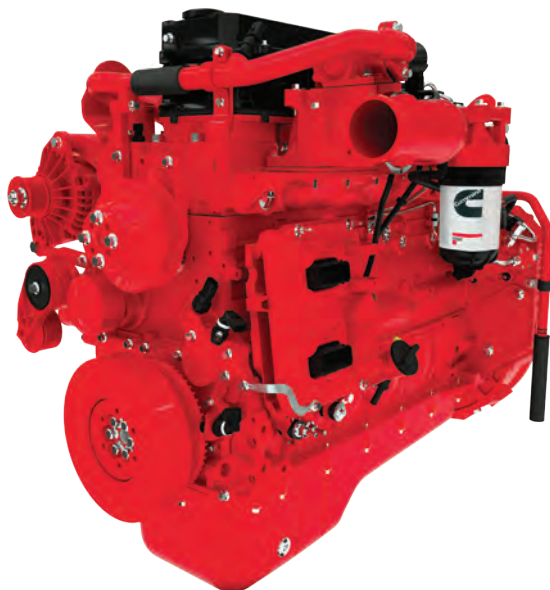
QSF2.8 – The QSF2.8 has the smallest footprint, and is almost 50 lb (23 kg) lighter than any other engine in its class – yet it delivers just as much power. Ratings range from 49 hp to 74 hp (37-55 kW), with best-in-class life-to-overhaul. It meets U.S. Environmental Protection Agency (EPA) Tier 4 Final and EU Stage IIIB emissions with a totally passive Diesel Oxidation Catalyst (DOC) that never needs operator input or maintenance.

QSB3.3 – The QSB3.3 has established itself as one of Cummins most reliable engines. Ratings from 85 hp to 120 hp (63-90 kW) make it one of the most powerful engines in its class.

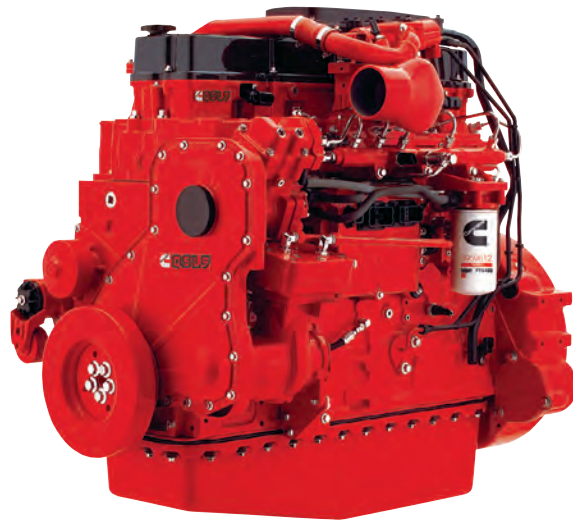


QSB4.5 – With power outputs ranging from 121 hp to 173 hp (90-130kW), the 4-cylinder QSB4.5 delivers performance comparable to some 6-cylinder engines, without excess bulk and weight.

QSB6.7 – Sometimes you just need the extra power and durability of a 6-cylinder diesel. The QSB6.7 has a proven design that has been delivering exceptional performance and reliability for years. Ratings range from 146 hp to 310 hp (109-231 kW).



C8.3 – Reliable, durable C Series engines are currently working around the globe in over a million pieces of equipment. Mechanically fuel-injected, turbocharged and aftercooled, this 8.3-liter diesel gets the job done with 185 hp to 260 hp (138-194 kW) while meeting emissions level requirements up to Tier 2/Stage II.



QSL9 – Built on a heritage of reliability and durability, the QSL9 incorporates a heavy-duty fuel system and innovative air handling to provide cleaner combustion and improved performance, delivering 250 hp to 400 hp (186-298 kW) in underground mining applications.

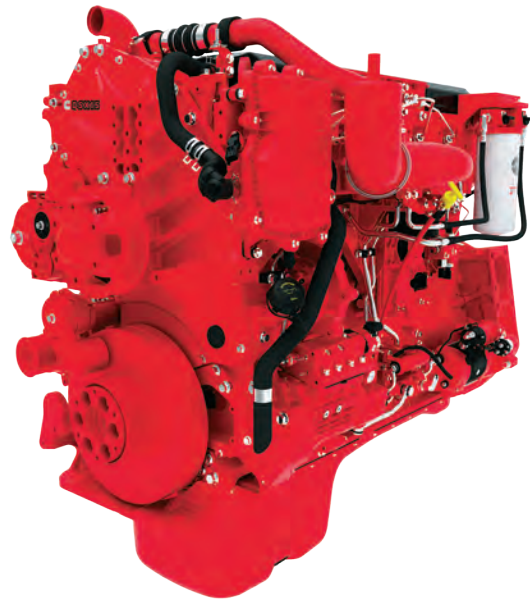
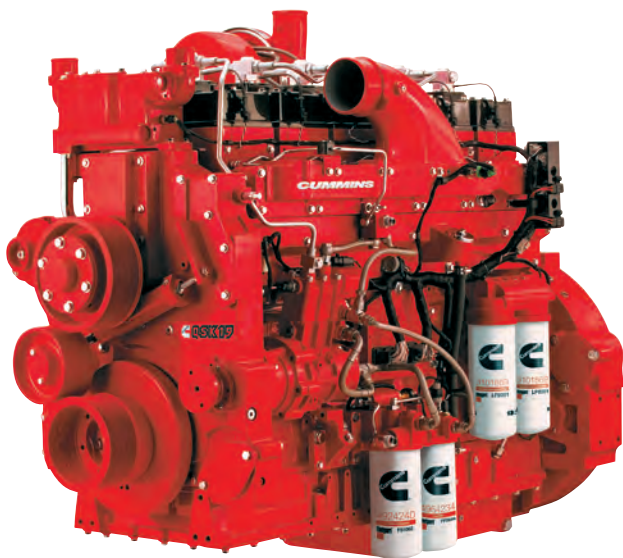
QSM – This 11-liter engine combines heavy-duty features with Cummins CELECT™ electronics for strong fuel economy and robust performance. Tier 3/Stage IIIA ratings are available from 250 hp to 400 hp (186-298 kW).

QSX11.9 – The compact QSX11.9 has one of the highest power-to-weight ratios in its class, with ratings from 290 hp to 500 hp (216-373 kW). An impressive torque rise (up to 50 percent) enables this engine to take full advantage of a peak torque rating of 1600 lb-ft (2169 N•m).

QSX15 – The QSX15, with ratings from 450 hp to 675 hp (336-503 kW), uses proven heavy-duty technology designed to enhance engine reliability and provide superior performance in the most demanding underground mining applications.

QSK19 – The QSK19 has enough power to handle the largest underground mining equipment. Tier 3/Stage IIIA ratings are available, ranging from 450 hp to 760 hp (336-567 kW).

For more information on ratings, please see your local Cummins distributor.



More Options. Every Underground Mine.

The cleaner your equipment runs, the safer your environment and the lower your ventilation needs and expenses. Cummins engines are designed to produce fewer emissions and a safer work environment, with many MHSA- and CANMET-approved ratings. If an approved rating is required, please contact your Cummins distributor for an updated list of approved ratings.

More Profits, Lower Cost. Every Ton.

Advanced technology such as our High Pressure Common Rail (HPCR) fuel system and advanced electronics help many of our engines achieve lower noise output and meet the latest emissions requirements. Cummins technologies are designed as a totally integrated system to optimize performance, reliability, cost, and emissions.

Plus, Cummins engines are designed with easy service points and long service intervals. Those two factors can make a big difference, considering tight packaging, height restrictions and the difficulty of getting service access to underground equipment.

QuickCheck 5600. Faster. More Powerful.

Cummins QuickCheck 5600 handheld computer transforms the way you look at engine data. Faster processing speeds, more memory and a longer battery life give technicians the ability to monitor and download data and modify parameter settings without using a computer.

Once registered, the preloaded PowerSpec® application lets you adjust engine parameter settings using just the handheld unit. QuickCheck 5600 comes with QuickCheck CE and PowerSpec CE applications installed.



QuickCheck CE monitors data from any manufacturer's electronic engine for transmission, braking and vehicle systems using standard J1587 or J1939 data links. PowerSpec CE reads trip and fault code functions from Cummins engines, including average mpg, total engine hours, percent idle time, sudden decelerations and more.

Simple buttons and touchscreen navigation make QuickCheck 5600 easy to use while a larger, 4-inch video graphics array (VGA) liquid-crystal display (LCD) screen is easily read under various lighting conditions. It comes with a removable battery pack that lets you to switch to a second pack while recharging the original.

Total control in the palm of your hand – that's QuickCheck 5600.

More Performance: Cummins PowerMatch.

Quantum System electronics allow Cummins to customize the performance of your underground mining engine to a specific piece of equipment or application. We examine everything from load factors to ambient temperatures to different operating modes to develop a power-demand profile. Once we have that profile, we customize the torque curves and power ratings to get your engine and equipment working together for optimum performance.

More Ease Of Installation: 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 costs. 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 a potential 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.

More Accuracy: Cummins INSITE™

For years, INSITE has been making it easy for technicians to troubleshoot, repair and service our mining engines through easy-to-follow steps on a computer. Proprietary software includes step-by-step engine diagnostics, drawings and diagrams to improve troubleshooting and repair accuracy, providing the kind of uptime you demand from your equipment, every hour of every day.



More Confidence: Cummins Base Warranty.

Cummins engines are backed by the best warranty in the industry, with full coverage for unlimited hours the first year, extending through 2 years or 2,000 hours, whichever comes first. Major-components coverage continues through the third year or 10,000 hours.

Encompass 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 labor, or parts, labor and travel coverage. Encompass protection plans are available for your underground mining engine, with a variety of terms available from 3 to 7 years, based on the engine model.

These plans cover all Cummins-manufactured components. Maintenance components are included through the end of the third year (second year on the QSK19).

Encompass protection plans may be purchased up to six months after the Date-in-Service (DIS) of your Cummins engine. See your Cummins distributor for pricing. For additional details, ask to see Bulletin 3624570.

A \$200 deductible (\$300 for the QSK19) applies per service visit after the expiration of the base warranty period.



More Support.

Cummins engines are backed by the largest and most capable parts and service network of any engine manufacturer in the world, with more than 600 authorized locations in over 190 countries and territories.

More Information: Cummins QuickServe® Online.

The latest information about your Cummins engines and parts can be found at QuickServe Online. This resource puts every fact at your fingertips, from parts catalogs with exploded diagrams and a Cummins ReCon® part number cross-reference to owners manuals, operation and maintenance manuals, service bulletins, warranty information and more, covering over 15 million Cummins Engine Serial Numbers (ESNs). Check it out at quickservice.cummins.com.

Cummins offers factory-certified technicians, the most sophisticated diagnostic and repair tools in the industry and the largest parts and service network of any engine manufacturer. Our worldwide team of mobile service technicians is always ready to deliver service when and where you need it, 365 days a year, seven days a week, 24 hours a day.



More Answers.

If you'd like to know more about Cummins underground engines, please visit cumminsengines.com. Service locations and product literature are available 24/7/365 by calling 1-800-DIESELS™ (1-800-343-7357). When you're ready for more, we're ready to take good care of you.





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