

PERFORMANCE THAT'S GROUND BREAKING



ALWAYS ON



WHY CHOOSE CUMMINS

WHO WE ARE

Cummins Inc. is a global power leader designing, manufacturing, distributing and servicing engines and related technologies including fuel systems, controls, air handling, filtration, emission solutions and electrical power generation systems. With over 100 years of diesel experience, the company is now developing a range of complementary power solutions including electric, hybrid, natural gas and fuel-cell technologies to meet or exceed environmental sustainability requirements. We partner with our customers to find the best power solution for their needs.

GLOBAL AND LOCAL

We are the ideal global partner with the ability to design, develop and manufacture products on 6 continents. With over 80 manufacturing plants including 18 engine factories, we can make products exactly where customers need them. Common product platforms are built around world, giving our customers consistency of installation, with emissions capability and cost tailored to their regional needs.

Our dedicated global network is the largest in the industry and this gives confidence to manufacturers and end users who know that support is available for their products, all around the world.

ENGINEERED FOR OUR CUSTOMERS

Cummins remains at the forefront of developing and applying new technologies to meet current and future emissions legislation, with an investment of close to \$1 billion per year. Our product strategy is not only focused on reducing the impact on the environment, but also engineering value for customers through benefits in performance and running costs.



TRANSFORMING YOUR FUTURE

ENERGY DIVERSITY

Clean diesel, diesel hybrid, plug-in hybrid, natural gas, electric, renewable fuels, fuel cells



CONNECTIVITY

Remote monitoring:
reduced repair costs,
longer engine life,
reduced downtime



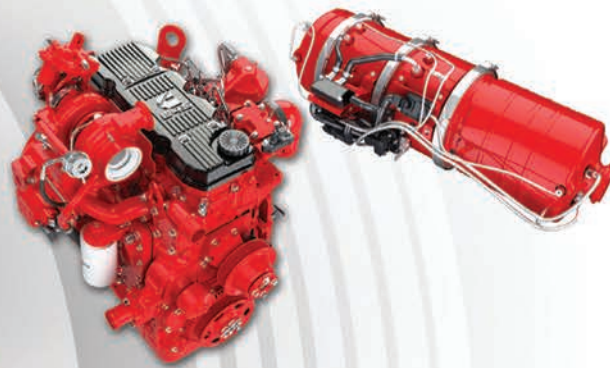
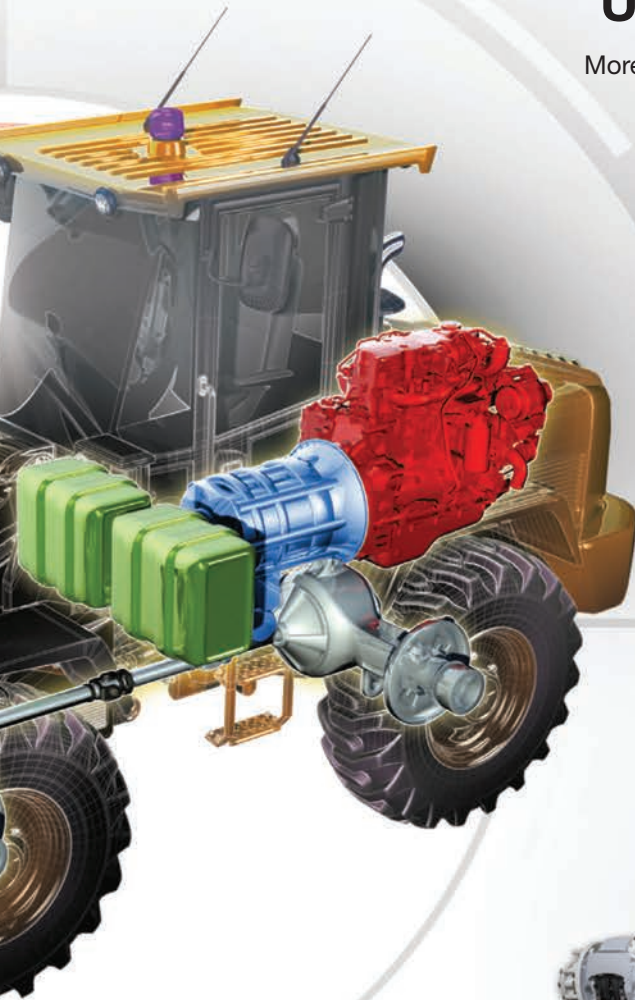
POWERTRAIN EVOLUTION
EFFICIENCY, SUSTAINABILITY, PRODUCTIVITY



As a global power leader, Cummins is demonstrating expertise across multiple product platforms including ultra clean diesel, natural gas, hybrid, full electric and fuel cell technologies as well as through in-house components expertise. All products are designed and manufactured by Cummins and fully integrated for optimal performance and the lowest total cost of ownership.

ULTRA CLEAN DIESEL

More power, lower running and maintenance costs,
smaller, simple and reliable



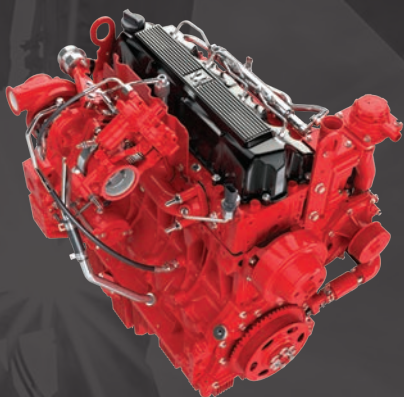
OPTIMIZATION

Enhanced transmissions,
hydraulic systems, cooling,
accessories and options



Our wide range of products and services are generating your power, moving your equipment as well as managing and maintaining your valuable assets. Cummins power is delivering reliable, efficient operation with optimized uptime for excavators, dump trucks, mobile lighting and more.

PERFORMANCE SERIES TECHNOLOGY FOR GLOBAL CONSTRUCTION



F3.8™*

Displacement
3.8 Liters

Power
75-129 kW / 100-173 hp

Max. Torque
620 Nm Max. Torque

Emissions Level
Stage V / Tier 4 Final

Product Technologies
Single Module™ DPF/SCR
EGR-free
Wastegate turbo



B4.5™

Displacement
4.5 Liters

Power
90-149 kW / 120-200 hp

Max. Torque
780 Nm Max. Torque

Emissions Level
Stage V / Tier 4 Final

Product Technologies
Single Module™ DPF/SCR
EGR-free
Wastegate turbo



B6.7™

Displacement
6.7 Liters

Power
116-243 kW / 155-326 hp

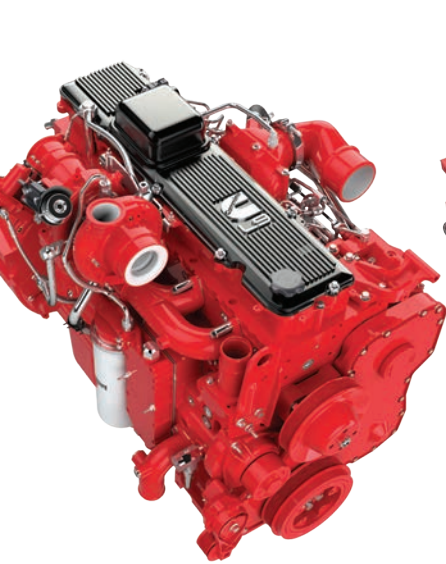
Max. Torque
1375 Nm Max. Torque

Emissions Level
Stage V / Tier 4 Final

Product Technologies
Single Module™ DPF/SCR
EGR-free
Variable Geometry turbo

Cummins Performance Series engines do more with less. For operators they deliver higher performance, more machine capability and lower total cost of ownership. For equipment manufacturers, the removal of EGR from the F3.8 to L9 range coupled with Cummins' Single Module™ aftertreatment reduces installation complexity and space claim.

*Also available at a 55 kW (75 hp) rating, ideally suited for compact equipment requiring high levels of torque.



L9™

Displacement

9 Liters

Power

206-321 kW / 275-430 hp

Max. Torque

1846 Nm Max. Torque

Emissions Level

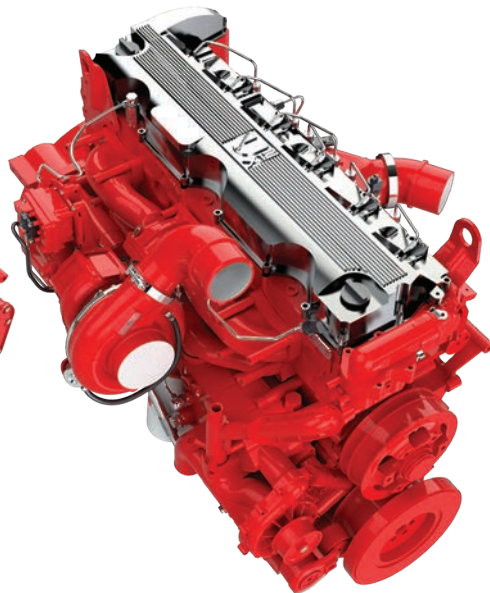
Stage V / Tier 4 Final

Product Technologies

Single Module™ DPF/SCR

EGR-free

Wastegate turbo



X12™

Displacement

12 Liters

Power

250-382 kW / 335-512 hp

Max. Torque

2305 Nm Max. Torque

Emissions Level

Stage V / Tier 4 Final

Product Technologies

DPF/SCR

EGR-free

Wastegate turbo



X15™

Displacement

15 Liters

Power

336-503 kW / 450-675 hp

Max. Torque

2779 Nm Max. Torque

Emissions Level

Stage V / Tier 4 Final

Product Technologies

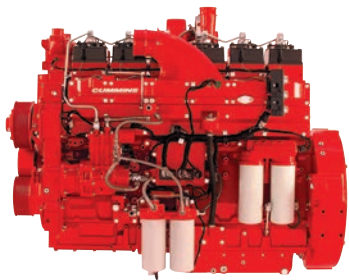
DPF/SCR

Cooled EGR

Variable Geometry turbo

All Performance Series engines are available as Power Units which are more than 60% pre-approved for installation. All Performance Series Power Units include an engine, Single Module™ aftertreatment (F3.8-L9), cooling system, hoses, air cleaner and either mounting feet or base rails.

CUMMINS CLEAN DIESEL TECHNOLOGY FOR QUARRYING AND MINING



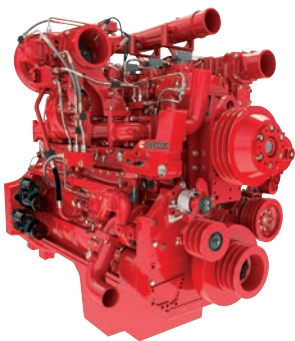
QSK19

Displacement
19 Liters

Power
567 kW / 760 hp

Max. Torque
3007 Nm / 2218 lb-ft

Emissions Level
Stage V / Tier 4 Final



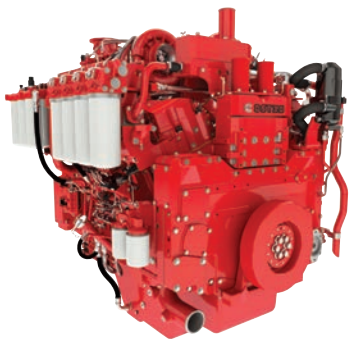
QSK23

Displacement
23 Liters

Power
567-783 kW / 760-1050 hp

Max. Torque
3928 Nm / 2897 lb-ft

Emissions Level
Stage V / Tier 4 Final



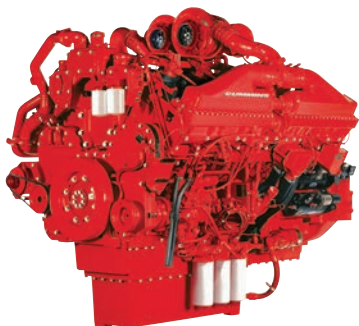
QST30

Displacement
30 Liters

Power
708-895 kW / 950-1200 hp

Max. Torque
6612 Nm / 4877 lb-ft

Emissions Level
Stage V / Tier 4 Final



QSK38

Displacement
38 Liters

Power
810-1193 kW / 1086-1600 hp

Max. Torque
6242 Nm / 4604 lb-ft

Emissions Level
Stage V / Tier 4 Final

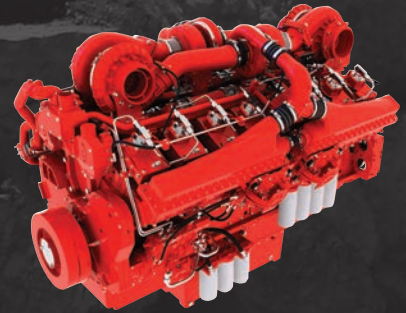
QSK50

Displacement
50 Liters

Power
1119-1491 kW / 1500-2000 hp

Max. Torque
9600 Nm / 7081 lb-ft

Emissions Level
Stage V / Tier 4 Final



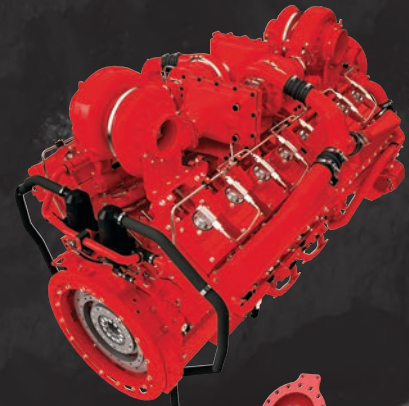
QSK60

Displacement
60 Liters

Power
1398-2125 kW / 1875-2850 hp

Max. Torque
11218 Nm / 8274 lb-ft

Emissions Level
Stage V / Tier 4 Final



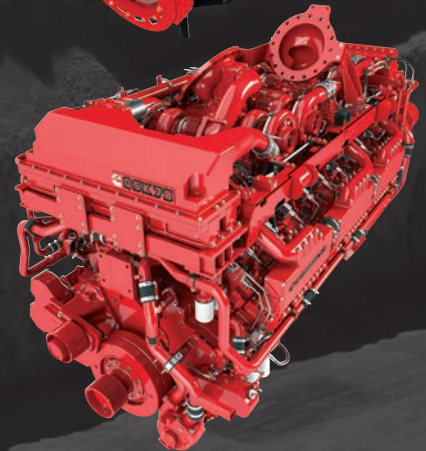
QSK78

Displacement
78 Liters

Power
2610 kW / 3500 hp

Max. Torque
14077 Nm / 10383 lb-ft

Emissions Level
Stage V* / Tier 4 Final
* certification available on request

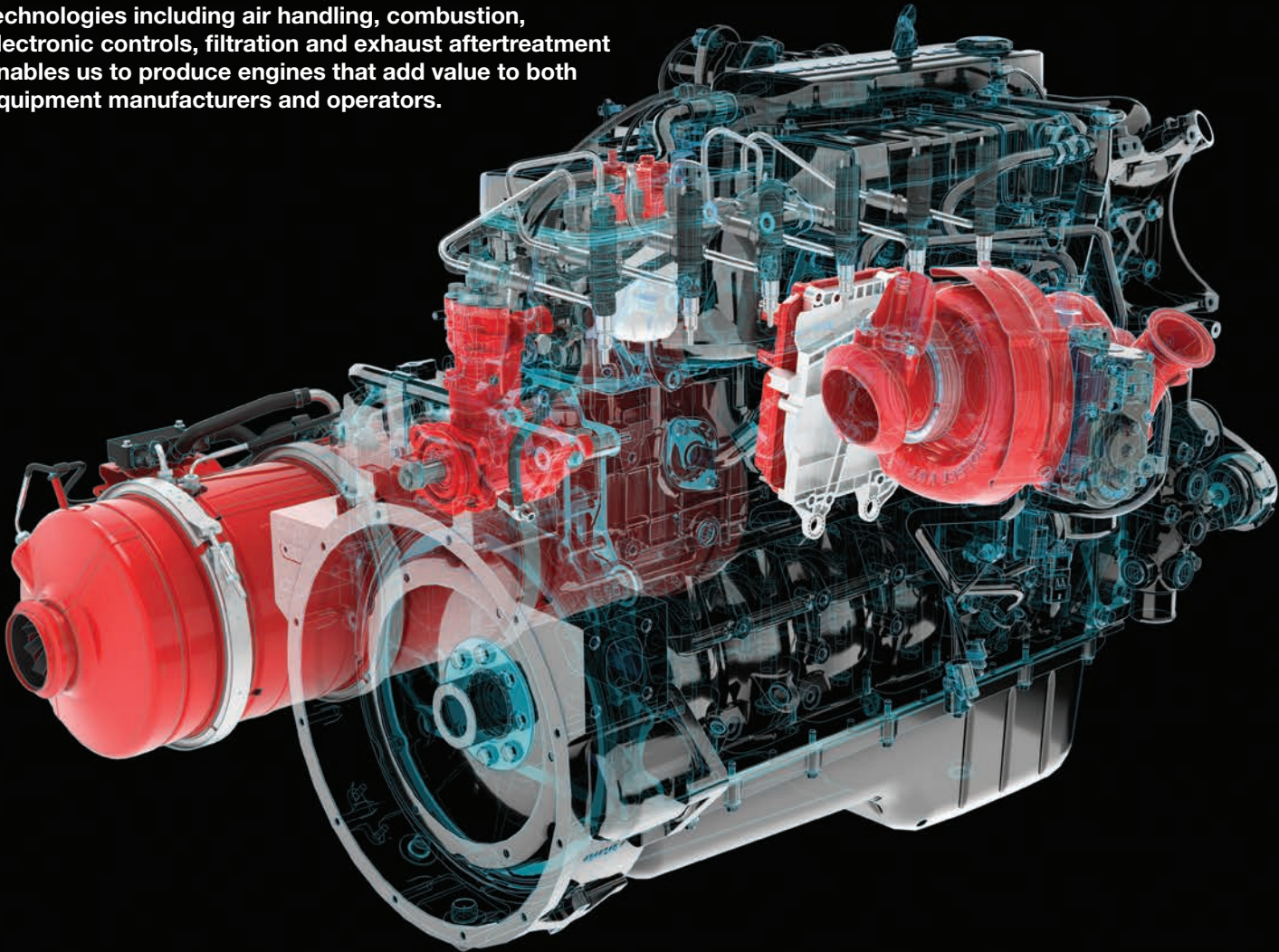


As market leader in the design, manufacture and service of engines for mining and quarrying applications, Cummins has a century of product expertise. In fact, more than 28,000 Cummins engines are active in mining operations around the globe in everything from excavators, drills and haul trucks to generators and underground mining equipment. These installations demonstrate our commitment to providing the highest uptime in the industry and reducing total cost of productivity and ownership for end users worldwide.

No matter what you're mining, or where your equipment runs, Cummins engines provide exceptional dependability, reliability and productivity – even in the most challenging environments.

IN-HOUSE COMPONENTS EXPERTISE

Our ability to develop and integrate in-house component technologies including air handling, combustion, electronic controls, filtration and exhaust aftertreatment enables us to produce engines that add value to both equipment manufacturers and operators.



Aftertreatment technologies

Single Module™ aftertreatment

- Combines DOC, DPF and SCR to facilitate the removal of EGR, and is up to 40% smaller and 20% lighter than previous systems.
- Modularity allows for ease of part replacement and reduced downtime.
- Offers easier system integration and flexible installation options.
- Advanced catalyst technologies offer improved NOx conversion efficiency and ash-loading capacity.
- Enhanced thermal efficiency and reduced aftertreatment warm up.

Flex Module™ aftertreatment

- Innovative packaging design saves installation space to fit the requirements of OEM configuration.
- Modular accessible design of product provides convenience of maintenance for customer.
- Advanced catalyst technologies facilitate DPF's larger ash capacity.
- Advanced control strategy and urea dosing system provide higher NOx conversion efficiency.

Turbocharging technologies

Holset® Series HE400VG:

Cummins continues to evolve the Holset VGT™ to meet future emission challenges, including EPA, CARB 24, and Euro 7 emissions requirements.

Our latest R&D investment has facilitated a 5% efficiency improvement and includes new developments to the rotor system, compressor stage and turbine stage, alongside a range of aerodynamic packages to tailor performance and meet demands on applications up to 15L.

Holset® Series HE600WG:

- Increased overall turbocharger efficiency by over 4 points compared to current product HE600.
- High pressure ratio compressor stage, aerodynamically tailored for off highway application.
- New compressor stage offers +3 points higher efficiency compared to current product HE600.
- New compressor stage offers increased flow range enabling customers using HE800 to switch to more compact and less expensive HE600
 - » helps meet downsizing requirements
 - » offers improved transient response and space claim benefits.
- New turbine housing offering higher durability (optimized thermal stress to improve fatigue life).

Fuel systems

Common rail with EDV – stop-start functionality. Capable of nominal operating pressure up to 2600 bar and sized for 4.5-15L engines.

CRFI-C Series – fuel injector showcasing electromagnetic and mechanical valve enhancements, as well as next generation controls integration to achieve state of the art performance.

OLP3c – a compact design fuel pump with up to 2600 bar pressure rating and Active Inlet Metering (AIM) for superior transient rail pressure response.

Electronics and diagnostics

CM2850 – complete engine control module for high levels of performance in all conditions.

Filtration technologies

Industrial Pro – the Fleetguard FH239 series is an extra rugged fuel housing specifically designed for off-road equipment. It combines EleMax™ filter technology and multi-layered NanoNet® media.

Fleetguard Hydraulic Filters – filter elements are available in a variety of media and micron rating efficiencies. Filters can be selected for petroleum- and water-base fluid compatibility.

FleetguardFIT™ – through intelligent sensing and data analytics, award-winning FleetguardFIT provides real-time status updates of Fleetguard filters in your equipment so maintenance can be based on real-world conditions.

Air Filtration – Air filtration offers broad coverage for cabin and engine air intake systems. Using the highest quality components and manufacturer processes to ensure consistent protection in all environments. Cummins proprietary media can be customized for specialized environments and applications.

NanoNet® Fuel Filtration – designed to deliver fuel to your engine that meets the fuel injection equipment (FIE) manufacturer's suggested ISO 12/9/6 cleanliness level. The product is proven with millions of miles and hundreds of thousands of hours of testing in the field and can extend service intervals, maintain high efficiency, reduce downtime and maintenance cost.

NanoNet® Lube Filtration – improves oil flow ability both at cold and hot operating temperatures resulting in better overall fuel economy, as well as captures contaminants that can damage the engine. The LF14000NN holds between 11-24% more contaminant than the will-fit filters made by others.

Fleetguard Coolant – ES Compleat™ OAT (Organic Acid Technology) is a Life-of-the-Engine organic additive fully formulated extended life Ethylene Glycol (EG) antifreeze/coolant. It provides superior diesel engine protection against freezing, boil-over, cavitation, liner pitting, erosion, corrosion, elastomer gasket degradation, and scaling.

DIGITAL SOLUTIONS FOR MAXIMUM AVAILABILITY



MONITORING

Connected Diagnostics™

Make informed decisions on when to really stop equipment and when to continue working by understanding the suggested root cause of fault alerts and knowing how long you have before an issue is likely to escalate. Wirelessly connect engines to Cummins using telematics for continuous monitoring and diagnosis using alert notifications sent via a convenient mobile app, email or web portal.

REPORTING

Connected Advisor™

Keep projects on schedule by planning service stops more productively, using streamlined engine reports which include daily and monthly summaries of engine health, required field actions and active campaigns. You'll know exactly what's wrong and how to resolve it using our integrated and detailed expert recommendations that automatically accompany each report.

CALIBRATING

Connected Software Updates™

Cummins powered equipment can remain on a jobsite while beneficial performance or fuel efficiency enhancements are applied at a fraction of the cost using integrated telematics systems and wireless, over-the-air connectivity services. This enables operators to scale software deployment efforts with ease and calibrate engine control modules remotely with minimal downtime.

SERVICING

Cummins Guidanz®

Guidanz technology integrates and streamlines every aspect of the Cummins service experience, accelerating the diagnostic and repair process. The Guidanz mobile app, when paired with the new Bluetooth®-enabled INLINE™ mini datalink adapter, displays Cummins fault codes and other key engine information anywhere you need it. Its Immediate Assessment feature enables you to determine root cause of a fault, review estimated repair times and identify the most likely repair parts for easier service scheduling. You can provide this information to your nearest certified service provider ensuring you receive the right support and streamlining the repair process.



GLOBAL PARTS AND SERVICE NETWORK



In today's connected world, look no further than Cummins. Wherever your Cummins powered equipment operates, you have access to the largest number of certified service and support locations of any engine manufacturer.

Cummins distribution network

- More than 8,000 distributor and authorized dealer locations in over 190 countries
- Local Cummins-certified technicians ready to complete your in-shop or field service needs and deliver high-quality repairs and rebuilds quickly by using the best tools with the most advanced technology
- Engineers trained in powering applications and identifying options to improve product performance
- Complete range of Cummins products and Genuine Cummins new and ReCon® parts
- Three global parts distribution centers equipped to handle the most complex business processes
- 24/7 customer support

We are the experts with advanced technology to make your life easier while providing a seamless support experience.

Contact us:

UK: 00-8000-CUMMINS™ (00 8000 286 6467)

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GROUND- BREAKING POWER WITH RESPONSIBILITY

**QSK60 TIER 4 ENGINE FOR
MINING APPLICATIONS**



**FOR
A WORLD
THAT'S
ALWAYS ON™**



MAKE AN IMPACT ON YOUR EFFICIENCY, NOT THE ENVIRONMENT

You know how much you depend on your excavators, haul trucks and wheel loaders – because you know how much it hurts when they let you down. That's where the uptime and productivity of the QSK60 is a game-changer. The QSK60 is designed for better fuel economy, lower emissions, and lower operating costs, and its reliability and durability are tested and proven in mines worldwide, with no loss of power or torque.

The QSK60. Power, with responsibility.

GROUNDBREAKING ADVANTAGES Driven by the needs of our customers, Cummins is investing relentlessly in developing better products that help you produce more and impact the environment less, keeping you operating at the lowest cost.

TIER 4 FINAL AND STAGE V EMISSIONS COMPLIANT By using a Selective Catalytic Reduction (SCR) system, we're able to protect engine performance and power density, while improving fuel economy over previous engine models, without increasing heat rejection or the engine footprint, equating to better cost of production (COP).

SMOOTH, QUIET AND ECONOMICAL Thanks to advanced in-cylinder combustion technology, the QSK60 has a more controlled combustion process, and smooth, quiet performance and lower operating costs with up to 2 percent better fuel economy. With the QSK60, it's all good.

A SMARTER FUEL SYSTEM The QSK60's new modular common rail fuel system means better fuel economy. But more than that, it also creates a quieter and smoother environment for your equipment operators. The system provides constant high injection pressure regardless of engine speed or load condition, to keep idling stable and improve low-end torque.

POWER, EVEN AT ALTITUDE* Two-stage turbocharging delivers full power and exceptional performance at elevation up to 14,000 ft. (4,267 meters) without power derate.

PERFORMANCE FILTER TECHNOLOGY

NanoNet® Advanced Media Technology filters out the smallest impurities that impede optimal engine performance. That extends the service intervals of your fuel filters while maintaining high efficiency and reducing downtime and maintenance costs.

DOUBLE THE FILTER LIFE NanoForce® Air Filters can more than double your filter life while extending maintenance intervals, keeping your engine running longer and improving COP.



*Single-stage configuration is also available.

DATA IS POWERFUL TOO

Through Cummins PrevenTech® Mining, we can empower you with innovative digital solutions for remote engine monitoring, prognostics, and customer alert creation and notifications, to help improve productivity, reduce costs, and optimize maintenance and servicing.



SERVICE AND SUPPORT WE'VE GOT YOUR BACK

GLOBAL SUPPORT NETWORK Distributor branches in over 190 countries to support your parts and service needs, no matter where your equipment is located.

TECHNICIAN EXPERTISE Over 8,000 trained technicians who partner with mine sites to achieve sustainable maintenance practices that ensure the highest availability and maximum productivity.

CUMMINS CARE Our unique solutions center with experts who have specialized skill sets, experience, and in-depth knowledge, to help you problem-solve fast and assist you with your service and support needs.

COMPREHENSIVE WARRANTY COVERAGE Cummins engines include a comprehensive, worldwide warranty. Extended coverage options are available. See your distributor for more details.

CUMMINS QUICKSERVE™ ONLINE With Cummins, one of the most comprehensive and powerful parts and service tools in the industry is all yours.





BREAKING NEW GROUND WITH PLANET 2050

In 2014, Cummins adopted its first comprehensive sustainability plan. Planet 2050 builds on this with 2050 aims and incremental 2030 goals. One of those goals is to partner with customers to reduce greenhouse gas (GHG) emissions from products in the field by 55 MILLION METRIC TONS. This is accomplished by improving the efficiency of our products. For more information on Planet 2050, [visit cummins.com](http://cummins.com).

Specifications	
Aspiration	Turbocharged and Aftercooled
Oil System Capacity	339-340 US QT (321-378.5 LITERS)
Displacement	3,683 CU IN (60.4 LITERS)
Bore	6.26 IN (159 MM)
Stroke	7.48 IN (190 MM)
Length	113.8 IN (2,890 MM)
Width	69.3 IN (1,760 MM)
Height	10.2 IN (2,060 MM)
Dry Weight	18,675 LBS (8,471 kg)
Wet Weight	19,766 LBS (8,966 kg)



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