



EVERYTM TON. QSK45/60



FOR MINING APPLICATIONS

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QSK45/60

Cummins QSK45 and QSK60 are designed to drive costs down and availability up. Heavy-duty components and advanced electronics deliver durable performance you can see using CENSE™ electronic engine management during operation. The Prelub system eliminates wear from hot and cold starts. Plus, extended service options like Cummins ELIMINATOR™ and CENTINEL™ keep you running up to 1,500 hours between filter service intervals – and extend oil changes for thousands of hours based upon oil analysis.

The QSK45 with its V12 configuration and the V16 QSK60 provide the power for large excavators, loaders and 300-ton haul trucks. Whether you're buying new or repowering, the QSK45 and QSK60 can help minimize downtime and maximize productivity.

Meeting Global Emissions Standards.

Cummins is dedicated to reducing the environmental impact of its engines through increased combustion efficiency with reduced emissions, longer service intervals with less oil and oil filter disposal, and decreased noise.

The QSK60 has been designed to meet U.S. EPA Tier 1 standards and continues to emit at these low-emissions levels today. Even so-called “uncertified” QSK45 and QSK60 ratings, for mines outside of North America, are significantly cleaner than most others and provide both low initial cost and the lowest operating cost per ton of any mining engine in their class.

Ratings

ENGINE MODEL	ADVERTISED HP (KW) @ RPM	PEAK TORQUE LB-FT (N•M) @ RPM	ASPIRATION
QSK60			
QSK60 2700	2700 (2013) @ 1900	7839 (10628) @ 1500	TWO-STAGE
QSK60 2500	2500 (1864) @ 1900	7260 (9843) @ 1500	TWO-STAGE
QSK60 2200*	2200 (1641) @ 1800	6618 (8973) @ 1500	TWO-STAGE
QSK60 2500	2500 (1864) @ 1900	7257 (9839) @ 1500	SINGLE-STAGE
QSK60 2300	2300 (1715) @ 1900	6677 (9053) @ 1500	SINGLE-STAGE
QSK60 2000	2000 (1491) @ 1900	6169 (8364) @ 1500	SINGLE-STAGE
QSK60 1875	1875 (1398) @ 1900	6169 (8364) @ 1500	SINGLE-STAGE
QSK60 1800	1800 (1342) @ 1900	6274 (8506) @ 1500	SINGLE-STAGE
QSK60 1782	1782 (1329) @ 1900	6274 (8506) @ 1500	SINGLE-STAGE

QSK45

QSK45 2000	2000 (1491) @ 1900	5805 (7871) @ 1500	SINGLE-STAGE
QSK45 1600	1600 (1193) @ 1900	5042 (6836) @ 1500	SINGLE-STAGE
QSK45 1500	1500 (1119) @ 1900	5042 (6836) @ 1300	SINGLE-STAGE
QSK45 1500*	1500 (1119) @ 1800	4727 (6409) @ 1500	SINGLE-STAGE
QSK45 1487	1487 (1109) @ 1900	5042 (6836) @ 1300	SINGLE-STAGE
QSK45 1350*	1350 (1007) @ 1800	4525 (6135) @ 1300	SINGLE-STAGE
QSK45 1200	1200 (895) @ 1900	4425 (5999) @ 1300	SINGLE-STAGE

*Continuous rating.

All ratings are intermittent unless otherwise noted.

Additional ratings may be available. Check with your Cummins distributor or dealer.

Specifications

	QSK45	QSK60
ENGINE TYPE	VEE, 12-CYLINDER	VEE, 16-CYLINDER
ADVERTISED HORSEPOWER	1200-2000 hp 895-1491 kW	1782-2700 hp 1329-2013 kW
PEAK TORQUE	4425-5805 lb-ft 5999-7871 N•m	6169-7839 lb-ft 8364-10628 N•m
BORE AND STROKE	6.26 IN X 7.48 IN 159 MM X 190 MM	6.26 IN X 7.48 IN 159 MM X 190 MM
OIL SYSTEM CAPACITY	192 U.S. QT 182 LITERS	297 U.S. QT 281 LITERS
COOLANT CAPACITY*	116.2 U.S. QT 110 LITERS	147.9/179.6 U.S. QT** 140/170 LITERS
LENGTH	93.4 IN 2372 MM	114.8 IN 2916 MM
WIDTH	61.9 IN 1572 MM	62.3 IN 1582 MM
HEIGHT	74 IN 1880 MM	79/92 IN** 2006/2337 MM
WET WEIGHT	13,500 LB 6,123 KG	18,893/20,514 LB** 8,570/9,305 KG

*Engine only.

**Single-stage/two-stage.

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

Features And Benefits.

- High-Capacity Gear Train – Extra-wide design with high-contact spur gears handles higher-capacity loads and provides greater durability.
- Long-Life Camshaft – 38% larger than its predecessor, this camshaft is reusable at rebuild.
- Cummins Prelub System – Eliminates wear from cold and hot starts – increases life-to-overhaul. Integral or remote mounting options.
- One-Piece Cast-Iron Block – Robust design with wide cylinder spacing gives long life and service capability for multiple full-life engine overhauls.
- Power Cylinder Package – Proven single-piece ferrous cast ductile iron pistons and cooling nozzles for maximum durability and reliability – combined with an advanced piston design that uses nitrided liners and cast-iron top rings – to handle high injection pressures with exceptional durability and a 10% longer life-to-overhaul compared to a two-piece piston.
- Seven-Bolt Cylinder Head – Supports increased power output with improved breathing and higher fuel efficiency.
- Fleetguard® Extended Service Filters – Fleetguard Extended Service oil filters can keep your equipment on the job up to 1,000 hours between filter changes, if equipped with CENTINEL (depending on load factors). Combination full-flow and bypass design simplifies service and reduces replacement costs.

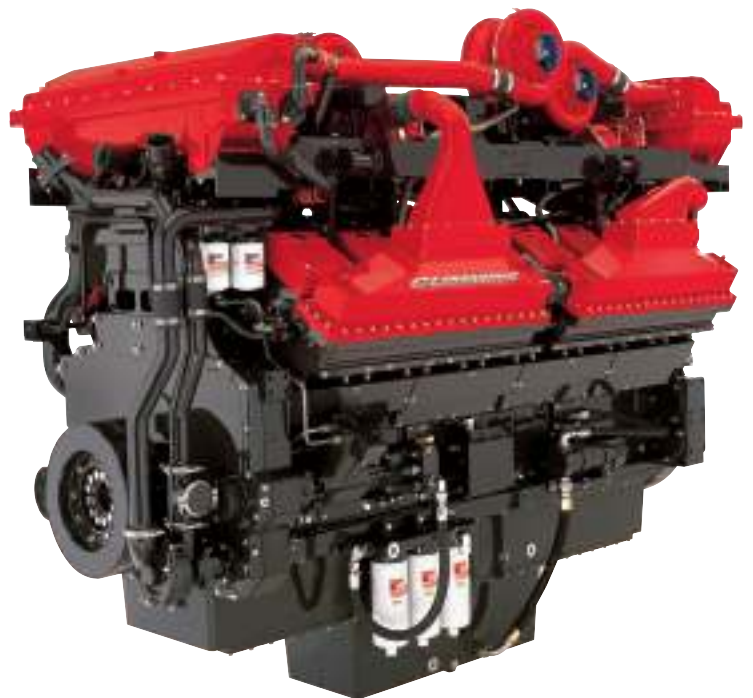


- Quantum System – Electronic engine performance management system allows full control of fueling and timing to optimize the engine to specific duty cycles and job requirements. Continuously monitors engine conditions and automatically adjusts for peak operation.

Performance.

Cummins QSK45 and QSK60 engines are built to handle bigger loads and the most severe operating conditions while delivering the best fuel economy per ton. This is especially true in high-altitude mining operations, where the QSK60 two-stage turbocharger provides the power operators demand. It delivers a full 2700 hp (2013 kW), even at 12,000-foot (3,657 meter) elevations without derate.

The QSK45 and QSK60 have been proven on the job time and time again. A wide variety of equipment is currently operating with QSK engines – including over 1,500 pieces of power generation and mining equipment. These engines routinely average above 95% uptime in mining operations where load factors commonly exceed 40%.



Maintenance.

The QSK45/60 is designed to maximize uptime with advanced filtration and lubrication systems. With the CENTINEL Advanced Engine Oil Management System, you can go up to 1,000 hours between standard oil filter changes and extend oil changes indefinitely with oil analysis.* Available with reserve tanks for continuous replenishment.

Plus, with Cummins ELIMINATOR, you can virtually eliminate filter disposal. The dynamic full-flow and centrifugal filter system incorporates a permanent core and extends filter change intervals to 1,000 hours, or 1,500 hours if equipped with CENTINEL – decreasing lube system maintenance costs by as much as 90%.

Combine these advanced lubrication products with Advanced Engine Monitoring, and you can safely extend other service intervals.

CENSE Electronic Engine Management.

Real-time diagnostics allow you to monitor and store engine condition data cylinder by cylinder while your equipment is operating. Sensors send a constant stream of data back to the ECM, capturing vital information every second.

Data is logged and time-stamped, so you can review trends and confidently extend maintenance intervals, while limiting unexpected repair incidents. What's more, you can program the system to deliver summary reports by exception, so you can pinpoint faults without going through a mountain of data.

Through mine dispatch systems or INSITE,TM you can keep preventive maintenance at a minimum without risking engine damage.



INSITE.

Cummins proprietary INSITE software includes step-by-step engine diagnostics, drawings and diagrams to improve troubleshooting and repair accuracy.

The Cummins QuickServe® Commitment.

Cummins QuickServe offers you factory-certified technicians, the most sophisticated diagnostic and repair tools in the industry, and the largest international 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. Every minute. Every day. Every year.



QuickServe® Online.

As a Cummins owner, you have access to one of the most comprehensive and powerful parts and service tools in the industry – Cummins QuickServe Online.

This is the same web site used by Cummins certified technicians to get parts and service information about your engine. And, while it contains parts and service data for nine million engines, finding the information for your QSK45/QSK60 engine takes just seconds.



*250-hour interval recommended on oil analysis.

Base Warranty.

QSK45/60 engines come with a 1-year/unlimited-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 10,000 hours of operation from the time your QSK45 or QSK60 engine goes in service.

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, if required. 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 three years or up to 10,000 hours of operation, whichever comes first.

Encompass Extended Coverage.

Unlike plans offered by other diesel manufacturers, Encompass gives you a broad array of plans to fit your budget and maintenance capabilities. From parts and labor coverage to options that include travel, you get exactly what you need, backed by the strength of Cummins parts and service network.

These plans cover all Cummins-manufactured components, including castings and forgings. Maintenance components are included through the end of the second year.

Encompass protection plans may be purchased up to six months after the in-service date of your QSK45- or QSK60-powered equipment. See your Cummins distributor for pricing and additional details.

A \$300 deductible applies per service visit after the expiration of the base warranty.

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 and service locations in the U.S. and Canada, 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 everytime.cummins.com.

■ **Cummins Web Site** – For product literature or additional information, log on to everytime.cummins.com.

■ **Cummins Online Registration** – Register all your Cummins engines quickly and easily at everytime.cummins.com to ensure quality parts and service for your engine.



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