



EVERY™ TON. QSK45/QSK60



**NON-CERTIFIED ENGINES
FOR MINING APPLICATIONS**

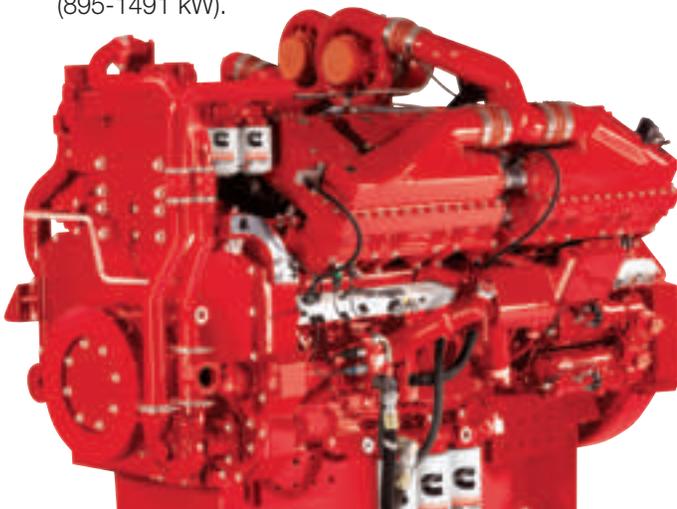
FOR MINING APPLICATIONS.

QSK45/QSK60

Performance.

The QSK45 and QSK60 engines were developed for mining and designed based upon the strength and durability of the legendary Cummins K2000E. With thousands of engines installed by nearly every major mining equipment manufacturer, you can be sure to find a QSK45 or QSK60 operating reliably in every corner of the world. This is because these engines have a lower operating cost per ton with better reliability than other mining engines of their size. Whether you're powering a large excavator, loader or haul truck, you can expect exceptional fuel economy for years to come with an absolute minimum of downtime. In fact, QSK45 and QSK60 engines routinely achieve over 95% uptime in mining operations with load factors exceeding 40%. Plus, even Cummins engines with non-certified emissions ratings generate clean power at former EPA Tier 1 levels. Every time.

The 16-cylinder QSK60 is available with single-stage turbocharging or a two-stage version for high-altitude and high load-factor applications, and is capable of delivering up to 2700 hp (2013 kW) at 12,000-foot (3,658-meter) elevations without power derate. The 12-cylinder QSK45 shares many of the same components and comes with single-stage turbocharging for a power range of 1200 to 2000 hp (895-1491 kW).



Ratings

ENGINE MODEL	ADVERTISED HP (kW) @ RPM	PEAK TORQUE LB-FT (N•M) @ RPM	RATING TYPE
QSK60			
QSK60 2700*	2700 (2013) @ 1900	7839 (10628) @ 1500	INTERMITTENT
QSK60 2500*	2500 (1864) @ 1900	7260 (9843) @ 1500	INTERMITTENT
QSK60 2300	2300 (1715) @ 1900	6677 (9053) @ 1500	INTERMITTENT
QSK60 2200**	2200 (1641) @ 1800	7175 (9728) @ 1500	CONTINUOUS
QSK60 2000	2000 (1491) @ 1900	6169 (8364) @ 1500	INTERMITTENT
QSK60 2000	2000 (1491) @ 1800	6169 (8364) @ 1500	CONTINUOUS
QSK60 1875	1875 (1398) @ 1900	6169 (8364) @ 1500	INTERMITTENT
QSK60 1875	1875 (1398) @ 1800	6169 (8364) @ 1500	CONTINUOUS
QSK60 1800	1800 (1342) @ 1900	6274 (8506) @ 1500	INTERMITTENT
QSK60 1782	1782 (1329) @ 1900	6274 (8506) @ 1500	INTERMITTENT
QSK45			
QSK45 2000	2000 (1491) @ 1900	5805 (7871) @ 1500	INTERMITTENT
QSK45 1600	1600 (1193) @ 1900	5042 (6836) @ 1500	INTERMITTENT
QSK45 1500	1500 (1119) @ 1900	5042 (6836) @ 1300	INTERMITTENT
QSK45 1500	1500 (1119) @ 1800	4727 (6409) @ 1500	CONTINUOUS
QSK45 1487	1487 (1109) @ 1900	5042 (6836) @ 1300	INTERMITTENT
QSK45 1350	1350 (1007) @ 1800	4525 (6135) @ 1300	CONTINUOUS
QSK45 1200	1200 (895) @ 1900	4425 (5999) @ 1300	INTERMITTENT

*Available in both single-stage aftercooled or two-stage intercooled and aftercooled
 **Two-stage turbocharging, intercooled and aftercooled

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

Specifications

	QSK45	QSK60
ENGINE TYPE	60° VEE 12-CYLINDER	60° VEE 16-CYLINDER
ASPIRATION	TURBOCHARGED AND AFTERCOOLED	TURBOCHARGED AND AFTERCOOLED*
DISPLACEMENT	2,746 CU IN 45 LITERS	3,661 CU IN 60 LITERS
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	275 U.S. QT 261 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***
DRY WEIGHT	12,815 LB 5,813 KG	16,612/19,515 LB*** 7,535/8,852 KG***
WET WEIGHT	13,500 LB 6,123 KG	17,540/20,514 LB*** 7,956/9,305 KG***

*Single-stage (two-stage is turbocharged, aftercooled and intercooled)

**Engine only

***Single-stage/two-stage

Features And Benefits.

- Forged high-strength tensile steel crankshaft with dual viscous dampers reduces gear train wear, and counterweights provide vibration damping for long engine and equipment life.
- Heavy-duty front gear train has low gear loading and high fatigue strength for dependable service.
- Cummins state-of-the-art integrated electronic control system allows users to tailor fuel system calibrations to most unique application requirements.
- High-pressure injection (HPI) fuel system provides optimum combustion for low emissions and good fuel economy.
- One-piece Ferrous Cast Ductile (FCD) iron pistons provide the strength and durability to handle high cylinder pressures for long life.
- Seven-bolt cylinder head supports increased power output with improved breathing and higher fuel efficiency.
- Dual piston-cooling nozzles per cylinder direct cooling streams of oil beneath each piston for long life with increased reliability.
- The engine wiring is embedded in a solid foam material and completely sealed in an aluminum housing for reliability in harsh environments.
- Fuel is delivered through drillings inside the block for increased safety and leak mitigation.
- Prelub system distributes and pressurizes oil in the engine before cranking can occur, and is proven to greatly extend life-to-rebuild.
- Two-stage Cummins oil filters, also available as Fleetguard[®], combine full-flow and bypass filtration to effectively remove harmful sludge and up to three times as many contaminants to reduce engine wear.
- Longer service intervals are achieved with optional Centriguard[™] centrifuge filters, the CENTINEL[™] continuous oil replacement system and the self-cleaning ELIMINATOR[™] full-flow/bypass filtration system.

A Name You Can Trust. Every Time. Everywhere.

Cummins possesses a vast amount of knowledge in mine operations. We are ready to assist you with experienced and dedicated local



mining business leaders and high-horsepower-engine technical support – fully backed by the strength of Cummins industry-leading technology and total support of top management. When you buy a piece of equipment with a Cummins QSK45 or QSK60, you get more than just an engine. You get:

- Full life cycle support, with proven engineering expertise from engine commissioning through final overhaul.
- Immediate parts and service availability.
- An established worldwide network with over 500 distributor facilities in nearly 190 countries, dedicated and empowered to service your needs. Every hour, every day.
- The best warranty in the business, which includes full coverage for unlimited hours during the first year, extending through two years or 2,000 hours (whichever comes first). The base warranty also includes 3-year/10,000-hour standard protection on major components. Extended warranties are available as well.

With the strength of Cummins at your side, your mine can process more material with increased uptime and greater productivity at a low cost per ton. Most important, our worldwide presence and comprehensive support make Cummins a proven, committed mining partner you can always depend on.

For more about the proven advantages of Cummins QSK45 and QSK60 engines and all our advanced technology for mining applications, see your local Cummins distributor.



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