



EVERY TON.
QSK78



FOR MINING APPLICATIONS

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QSK78

If you need to move mountains, you will appreciate the massive horsepower and enormous productivity of the QSK78. Its 3500-hp (2611 kW) V18 configuration combines the proven durability of the Cummins K Series with an advanced electronic control system, heavy-duty components, high-altitude capability and extended maintenance features. The QSK78 is loaded with proven technology that adds value every day – and heavy-duty features that add years of service.

The Quantum System provides complete engine control and monitoring that automatically adjust for peak performance and fuel efficiency. Full diagnostics and prognostics, plus programmable parameters let you customize engine performance. Plus, the QSK78 meets every current EPA standard for Tier I.



Ratings

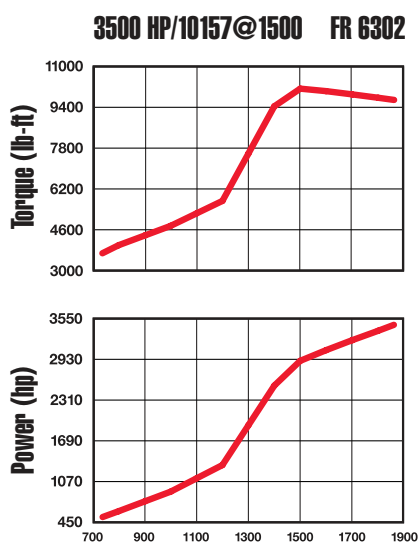
ENGINE MODEL	ADVERTISED HP (KW) @ RPM	PEAK TORQUE LB-FT (N•M) @ RPM
QSK78-3500	3500 (2611) @ 1900	10157 (13771) @ 1500

Ratings are intermittent unless otherwise noted. Additional ratings may be available. Check with your Cummins distributor or dealer.

Specifications

ENGINE TYPE	VEE, 4-CYCLE, 18-CYLINDER	
DISPLACEMENT	4735 CU IN	78 LITERS
ADVERTISED HORSEPOWER	3500 HP	2611 kW
PEAK TORQUE	10157 LB-FT @ 1500 RPM	13771 N•M
BORE AND STROKE	6.69 IN X 7.48 IN	170 MM X 190 MM
ASPIRATION	TURBO AFTERCOOLED/INTERCOOLED	
OIL SYSTEM CAPACITY	304 U.S. QT	281 LITERS
COOLANT CAPACITY*	176 U.S. QT	166.6 LITERS
LENGTH	134 IN	3149 MM
WIDTH	64.2 IN	1631 MM
HEIGHT	93.4 IN	2372 MM
WET WEIGHT	24,912 LB	11,300 KG

*Engine only.



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

Features And Benefits.

- High-Altitude Capability – Two-stage turbocharging, combined with two-pump, two-loop intercooling, delivers 3500 hp (2611 kW) up to 12,000-foot (3,658 meter) elevations. Low-temperature aftercooling provides exceptional durability. For most altitudes, single-stage turbocharging is available.
- Cummins Prelub System – Eliminates wear from cold and hot starts – increases life-to-overhaul. Integral or remote mounting options.
- ELIMINATOR™ Filtration System – Eliminates oil filter disposal headaches with a full-flow and centrifugal system that incorporates a permanent core. This standard feature eliminates up to 90% of lube system maintenance costs while increasing uptime.
- Fleetguard® ES Filtration – Fleetguard's ES oil filter can keep your equipment on the job up to 1,000 hours between filter changes (depending on load factors). Combination full-flow and bypass design simplifies service and reduces replacement costs.
- Quantum System – Programmable features optimize engine performance to specific duty cycles and job requirements. Continuously monitors engine conditions and automatically adjusts for peak operation.



- CENSE™ Real-Time Diagnostics – Allows you to monitor engine performance cylinder by cylinder on a real-time basis, either through mine dispatch systems or over the Internet at www.MiningGateway.com. Also provides trending charts to help you keep preventive maintenance at a minimum without risking engine damage.
- CENTINEL Advanced Engine Oil Management System – Allows customers to extend oil change intervals up to 4,000 hours. Fully integrated design modulates burn rate based on load factor. Available with reserve tanks for continuous replenishment.



Versatility.

QSK78 Quantum System technology is ideal for tough applications that demand continuous uptime, including excavators and haul trucks that can exceed 360-ton capacity. QSK78 projected haul truck gallons-to-overhaul should exceed 1,250,000 (4,731,768 liters) – which also makes it a great engine for repowers.

QUANTUM

Maintenance And Service.

More power. Less service. The QSK78 is designed to maximize uptime with advanced filtration and lubrication systems, with standard oil filter changes up to 1,500 hours, depending on load factors.



MiningGateway.com.

Whether you are in your office or at home, MiningGateway.com lets you monitor engine performance, cylinder by cylinder, while your equipment is working. This option also provides trend data to help maintenance planning. Data is captured within your engine through optional CENSE hardware and software, a Cummins uptime exclusive.

QuickServe ProAct.™

Cummins also offers QuickServe ProAct, which gives you 24-hour monitoring of your engines by mining engine experts. It is included as a standard item during the first year of ownership and is available beyond year one for a per-hour fee. Our specialists review cylinder-by-cylinder performance, tracking trend data and going beyond preventive maintenance to proactive maintenance. Also monitored are lubrication, cooling, as well as intake and exhaust temperatures. 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.



INSITE.™

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

Cummins QuickCheck III.

Questions about engine information? Cummins QuickCheck III* puts every answer in the palm of your hand! QuickCheck III software, together with your handheld device, reads and captures engine data quickly and conveniently from any Cummins electronic diesel engine or other engines you run (via J2587 and J1939). Use it to check everything from fuel burned and total engine hours to coolant temperature and boost pressure. QuickCheck III even logs fault codes, which can be used with Cummins INSITE to get detailed repair instructions for faster service.



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

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.



QuickServe Online (<http://quickserv.cummins.com>) gives you easy access to parts and service information. While there are over eight million engines and literally billions of part numbers indexed in the QuickServe Online database, you can find the information you need in seconds with our high-speed search function and your engine's serial number.

Base Warranty.



QSK78 engines come with a full 2-year/2,000-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 QSK78 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. 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.

Every Question, Answered.

- MiningGateway.com – The latest Cummins mining information and current product upgrade data is available 24/7 at this web site.
- 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, service locations and product literature, call 1-800-DIESELS (1-800-343-7357).
- Cummins PowerMaster – E-mail the experts for timely answers to Cummins-related questions at powermaster@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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