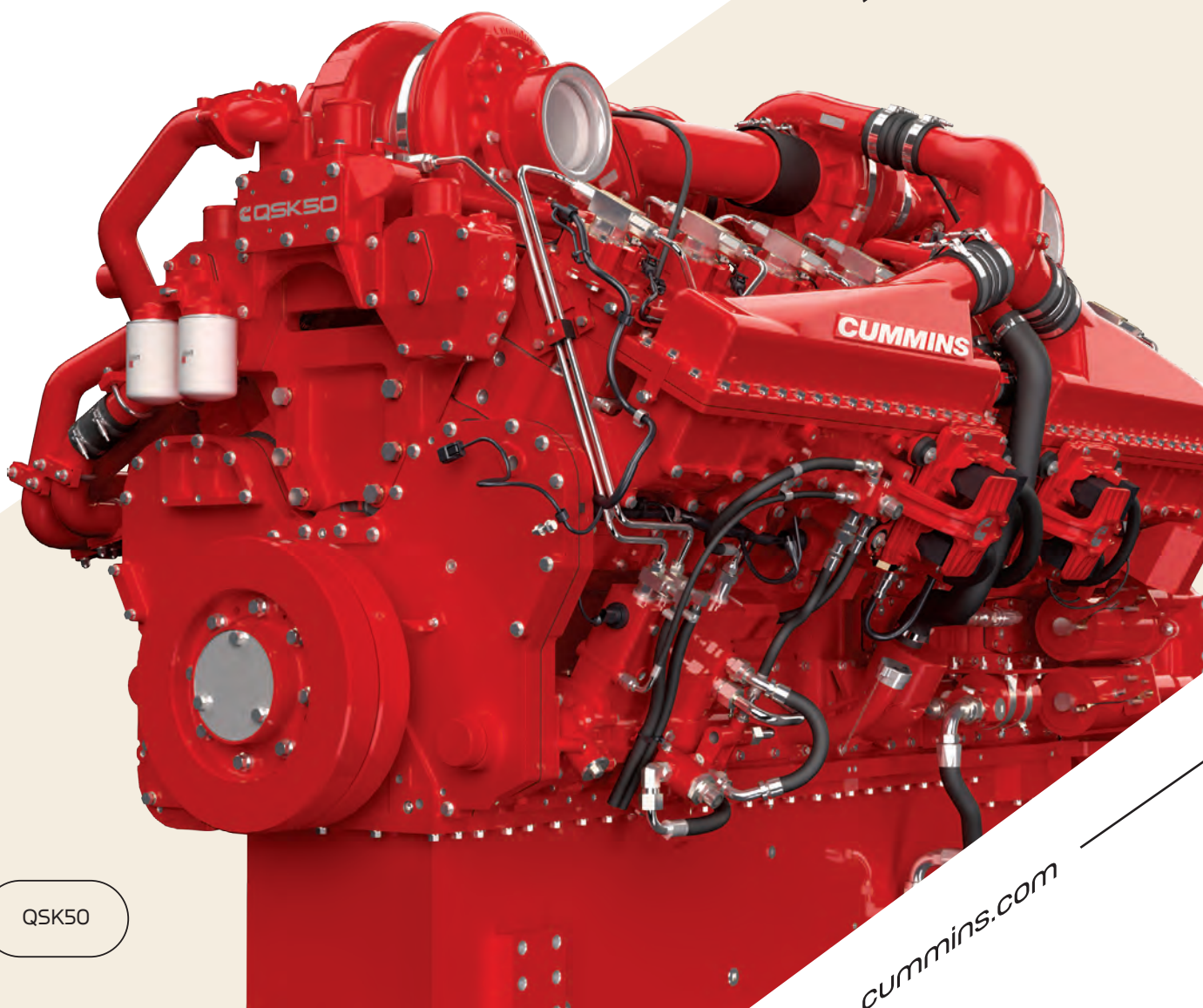




QSK50 for Locomotives and Railway Applications



QSK50

cummins.com

Industry-leading features and benefits

KEEP YOUR RAILROAD OUT FRONT WITH AN IMPRESSIVE ARRAY OF FEATURES AND BENEFITS.

Modular Common Rail Fuel System (MCRS):

This system maintains high injection pressures regardless of engine speed for exceptional performance at every rpm. Compared to unit injection systems, it provides improved response and load pickup with lower noise and vibration.

Quantum System: It continuously monitors engine conditions and automatically adjusts for peak operation. Programmable features optimize engine performance to specific duty cycles and job requirements. An improved durable aluminum channel wiring harness also makes it easier to service.

Low — temperature aftercooling with singlestage turbocharging:

This feature reduces mechanical and thermal stress while lowering emissions, providing a compact engine envelope while maintaining engine accessibility.

FCD Power Cylinder: Proven ferrous cast ductile iron/steel pistons ensure maximum durability and reliability. Individual, seven-bolt, cross-flow cylinder heads provide high efficiency and excellent pressure capability.

Enhanced Camshaft and Gear Train:

A large-diameter micro-finished camshaft and a heavy-duty gear train with high-contact ratio spur gears provide higher capacities and greater durability.

Prelub™ System: This system prevents starts without oil pressure, eliminating dry starts and improving engine life.

ELIMINATOR™: Save up to 90% of lube system maintenance costs and increase productivity. This self-cleaning filter core helps eliminate oil filter change and disposal headaches. It requires servicing only every 1,500 hours.

CENTINEL™: The device constantly monitors engine duty cycle and load factors, removing small amounts of used oil as required and replenishing them with new oil. The removed oil is blended into the fuel system to be burned during combustion. This extends oil change intervals up to 4,500 hours*.

875,000 gallons to overhaul: Proven power cylinder, one-piece cast-iron block, heavy-duty crankshaft and connecting rods allow a life-to-overhaul of up to 875,000 gallons (3,312,235 liters) of fuel burned with no mid-life overhaul required.

Specifications					
Model	Emission	HP	kW	HP	Aftertreatment
QSK50	EU SIIIA	2,000	1,491	1,800	N/A
QSK50	EPA Tier 3 Switcher Locomotive	1,800 – 2,130	1,342 – 1,588	1,800	N/A
QSK50 (Single Stage Turbocharging)	EPA Tier 2 Non-Road	1,350 – 1,600	1,007 – 1,193	1,800	N/A
QSK50 (Two Stage Turbocharging)	EPA Tier 2 Non-Road	1,675 – 2,500	1,249 – 1,865	1,800 / 1,900	N/A
QSK50 (Two Stage Turbocharging)	EU Stage V Locomotive ready**	1,500 – 2,400	1,119 – 1,790	1,800	Dual Series 6000 Selective Catalytic Reduction
QSK50 (Single Stage Turbocharging w/ETV***)	EPA Tier 4 Final Non-Road EU Stage V Locomotive ready**	1,500 – 1,900	1,118 – 1,417	1,800 / 1,900	Dual Series 4000 Selective Catalytic Reduction 1900 HP rating requires Dual 6000 Series

* Applicable to Tier-3 engines and below. ** Base hardware is capable of meeting Stage V. Calibration work required. *** ETV is exhaust throttle valve. Other ratings may be available. Please contact Cummins for more information.

Technology that will keep you on track.

The QSK50 locomotive engine with Modular Common Rail Fuel System (MCRS) is one of the Quantum Series from Cummins, providing innovative technology that delivers more for less:

- Outstanding reliability and durability
- Excellent fuel economy
- Lower running costs
- Longer engine life to overhaul

This is the latest evolution of the Cummins highhorsepower 50-liter engine which now includes the MCRS, FCD/steel power cylinder and advanced engine monitoring. It has been designed using the

experience of the K50 and its proven exceptional level of reliability.

The QSK50 with MCRS offers more power, more torque and higher durability — all while achieving lower fuel consumption, lower emissions and less servicing.

Life-cycle costs are significantly reduced, and with highly advanced Quantum System technology, the engine sets unbeatable standards in rail diesel productivity for general-purpose locomotives.

The QSK50 with MCRS is designed to provide the operator superior value and reliability, while meeting stringent worldwide emissions standards.

Specifications

Engine type	V-16 cylinder, 4-cycle	
Displacement	3,066.4 cu. in., 50.25 L	
Bore and stroke	6.25 x 6.25 inches, 158.75 x 158.75mm	
Aspiration	Turbocharged / aftercooled	
Oil system capacity	260 U.S. qt., 246 L	
Unaided cold start capability	-10 F (-23 C)	

Dimensions*

Length	110 IN	2,787 MM
Width	59 IN	1,500 MM
Height	70 IN	1,778 MM
Wet weight	13,035 LBS	5,913 KG

*Dependent on customer-specific options



Unmatched support and service for your rail engine systems.

Global support network: Backed by the strength of the Cummins global network of over 5,500 service locations in 160 countries.

Comprehensive warranty coverage : Cummins engines include comprehensive, worldwide warranty. Extended coverage options are available. See your distributor for more details.

Every part online: Cummins QuickServe Online provides access to one of the most comprehensive and powerful parts and service tools in the industry.

Cummins online product registration: Register your Cummins engine quickly and easily on cumminsengines.com to ensure quality parts and service.

Distributor expertise: The best source for service, parts and application assistance. To find your nearest Cummins distributor, go to the Worldwide Service Locator at wsl.cummins.com.

Contact your local distributor for more information.



Cummins Inc.
Box 3005
Columbus, IN 47202-3005
U.S.A.

cummins.com

Bulletin 4087221 Produced in U.S.A. Rev. 9/24
©2024 Cummins Inc.