



EVERY TRACK QSK23

FOR RAIL APPLICATIONS

FEATURES AND BENEFITS

High Pressure Injection Fuel System (HPI): Cummins HPI system injects fuel at 29,000 psi (199,955 kPa) for improved response and fuel economy. Continuously variable timing achieves low emissions.

Proven Design: Joint venture engine based on Komatsu 6D170 engine with over 20 years of production experience. Adapted with Cummins technology to meet the toughest demands of rail applications.

Quantum System: Programmable features optimize engine performance to specific duty cycles and job requirements. Continuously monitors engine conditions and automatically adjusts for peak operation. Improved durable aluminum channel wiring harness allows easy servicing.

Compact Configuration: Only 7" / 178mm longer and 3" / 76mm higher than the QSK19 engine, with more power.

Integrated Front Gear Housing: Includes oil pump, water pump and accessories for improved serviceability and low noise.

Advanced CELECT™ Electronics: Programmable engine controls optimize combustion at all altitudes and conditions. They provide advanced monitoring, diagnostic, prognostic and reporting capabilities. They include integrated engine protection features.

Air to Air Charge Air Cooling: Achieves improved performance and fuel economy while meeting the lowest emissions.

Dual Piston Oil Cooling Nozzles: Provides improved lubrication and better durability.

7 Bolt Cylinder Head Design: Increased clamping load and less space between bolts allows for higher cylinder pressure capability.

Ferrous Cast Ductile Iron Pistons: Proven single-piece ferrous cast ductile iron pistons for maximum durability and reliability.

Inline 6 Configuration: Provides ease of installation and maintenance relative to competitive V12 engines.

385,000 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 385,000 gallons (1,457,384 liters) of fuel burned with no mid-life overhaul required.



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

Maintenance Intervals:

Fuel filtration	up to 1500 hours
Engine Oil w/ CENTINEL	up to 4500 hours*

*oil sampling required

Ratings:

Application	Available Ratings bhp (kW) @ rpm	Emissions US EPA MOH / EU
Locomotive / Track Machinery	760 (567) @ 1800-2100	Tier 2/Stage IIIA
Locomotive / Track Machinery	860 (641) @ 1800-2100	Tier 2/Stage IIIA
Locomotive / Track Machinery	950 (708) @ 1800-2100	Tier 2/Stage IIIA
Rail Auxiliary Power	Up to 545 KWe – 60Hz	Tier 2
Rail Auxiliary Power	Up to 600 kVA – 50Hz	Tier 2

Other ratings may be available. Please contact Cummins for more information.

The QSK23 engine with High Pressure Injection Fuel System (HPI) is a new addition to the Quantum Series of rail engines from Cummins with innovative technology that delivers more for less.

The QSK23 with HPI has 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 a highly advanced CELECT electronic management system, the engine sets unbeatable standards in rail diesel productivity.

Released specifically for the rail engine market, the QSK23 with HPI has been designed with features which include:

- Tier 1/Stage I and Tier 2/Stage IIIA emissions capability
- increased durability and reliability
- lower total life costs of ownership
- high power and torque

The benefits of QSK23 with HPI advanced engineering are apparent on the balance sheet. Versus the original Cummins VTA28 engine the 23 liter provides a 25% increase in life to overhaul, up to 30% improvement in fuel economy and significantly reduced emissions and smoke. Due to its compact nature, the engine has the capability of replacing both in-line and Vee engine configurations, while providing all the benefits expected from Cummins.

CELECT – Electronic Management System Benefits:

- optimizes fuel consumption, power and torque within the emissions limits
- diagnostic and fleet monitoring benefits
- over 65 programmable features customized to each individual application
- continuously monitors and manages information from the engine mounted sensors
- compatible with fleet management software INSITE™ and INFORM™

Specifications:

Engine type	In-line, 6-cylinder	
Displacement	1,404 CU inches, 23 liters	
Bore and stroke	6.69 x 6.69 inches, 170 x 170mm	
Aspiration	Turbocharged / charge air cooled	
Oil system capacity	54.8 U.S. QT, 52 liters	
Unaided cold start capability	18°F, (-7.8°C)	

Dimensions*:

Length	76.3 inches	1,939mm
Width	42 inches	1,067mm
Height	66.7 inches	1,694mm
Wet weight	6,300 lb	2,858 kg

*dependent on customer specific options



Vossloh G6 locomotive powered by QSK23

WORLDWIDE SUPPORT. EVERYTIME.

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 www.everytime.cummins.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. If you need further assistance, contact Cummins directly:



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