cummins	Cummins Inc Columbus, Indiana 47201 EXHAUST EMISSIONS DATA SHEET		Basic Engine Model: QSK23-G3 Nonroad 1	Curve Number: FR50011	Page No. <b>1</b>		
Cum			Engine Critical Parts List: CPL:8352	Date: 28 AUG 12			
Displacement : 23.15 litre (1413 in <sup>3</sup> ) Bore : *		Bore : 17	170 mm (6.69 in.) Stroke : 170 mm (6.69 in.)				
No. of Cylinders : 6		Aspiratio	Aspiration : Turbocharged and Air to Air Aftercooled				

Engine Speed	Standby Power		Prime Power		Continuous Power	
RPM	kWm	BHP	kWm	BHP	kWm	BHP
1500	768	1030	701	940	537	720
1800	895	1200	809	1085	652	875

## **US EPA/CARB**

This engine, tested in accordance with 40 CFR 89, is in compliance with the 2001 US EPA Nonroad Tier 1 regulations:

	Component	g/BHP-hr	g/kW-hr
NOx	(Oxides of Nitrogen)	6.9	9.2
HC	(Hydrocarbons)	1.0	1.3
СО	(Carbon Monoxide)	8.5	11.4
РМ	(Particulate Matter)	0.40	0.54

# **Test Methods and Conditions**

### **Test Methods:**

Steady-State emissions recorded per ISO8178-1 during operation at rated engine speed (+/-2%) and stated constant load (+/-2%) with engine temperatures, pressures and emission rates stabilized.

### **Fuel Specification:**

46.5 Cetane Number, 0.035 Wt.% Sulfur; Reference ISO8178-5, 40CFR86.1313-98 Type 2-D and ASTM D975 No. 2-D.

#### **Reference Conditions:**

25°C (77°F) Air Inlet Temperature, 40°C (104°F) Fuel Inlet Temperature, 100 kPa (29.53 in Hg) Barometric Pressure; 10.7 g/kg (75 grains H<sub>2</sub>0/lb) of dry air Humidity (required for NOx correction); Intake Restriction set to maximum allowable limit for clean filter; Exhaust Back Pressure set to maximum allowable limit.

Data was taken from a single engine test according to the test methods, fuel specification and reference conditions stated above and is subject to engine-to-engine variability. Tests conducted with alternate test methods, instrumentation, fuel or reference conditions can yield different results.

Data Subject to Change Without Notice