

CUMMINS ENGINE COMPANY, INC

Columbus, Indiana 47201

EXHAUST EMISSIONS DATA SHEET

Basic Engine Model: **KTA50-G8**

Curve Number: FR-6243

Date:

Page No.

Engine Critical Parts List:

CPL: 2354 15Feb01

Bore: 159 mm (6.25 in.) Stroke: 159 mm (6.25 in.) Displacement: 50.3 litre (3067 in³)

No. of Cylinders: 16 Aspiration: Turbocharged and Low Temperature Aftercooled

Emissions Control Device: Turbocharging, Low Temperature Aftercooling (1 Pump/2 Loop) and Step Timing Control (STC)

Engine Speed	Standby Power		Prime	Power	Continuous Power		
RPM	kWm	ВНР	kWm	ВНР	kWm	ВНР	
1500	1429	1915	1200	1608	1100	1475	
1800							

Exhaust Emissions Data @ 1500 RPM

(at Target Coolant Inlet Temperature to Aftercoolers @ 25 °C (77 °F) Ambient)

	Standby Power			Prime Power			Continuous Power		
Component	g/BHP⋅h	mg/m ³	PPM	g/BHP⋅h	mg/m ³	PPM	g/BHP-h	mg/m ³	PPM
HC (Total Unburned Hydrocarbons)	0.16	60	110	0.13	47	90	0.11	40	80
NOx (Oxides of Nitrogen as NO ₂)	6.8	3400	1500	6.0	3000	320	5.6	2800	1250
CO (Carbon Monoxide)	2.0	980	720	1.0	650	480	0.9	560	410
PM (Particulate Matter)	0.26	130		0.09	45		0.06	30	
SO ₂ (Sulfur Dioxide)	0.15	68	TBD	0.15	68	TBD	0.14	68	TBD

Exhaust Emissions Data @ 1800 RPM

Not Available at 1800 RPM For 1800 RPM (see KTA50-G9)

CONVERSIONS: $(g/kWm \cdot h = g/BHP \cdot h \times 1.34)$

Reference Standard: ISO-8178

NOTE: mg/m³ and PPM numbers are measured dry and corrected to 5% O₂ content.

Data was recorded during steady state rated engine speed (± 25 RPM) with full load (± 2%). Pressures, temperatures, and emission rates were stabilized.

Fuel Specification: ASTM D975 No. 2-D diesel fuel with 0.2% sulfur content (by weight) and 42-50 cetane number. Fuel Temperature:

 $99^{\circ} \text{ F} \pm 9^{\circ}$ (at fuel pump inlet)

The HC, NOx, CO and PM emissions data tabulated here were taken from a single engine under the test conditions shown above. Data for SO₂ is calculated. This data is subject to instrumentation, measurement, and engine-to-engine variability. Engine operation with excessive air intake or exhaust restriction beyond published maximum limits, or with improper maintenance, may result in elevated emission levels. Specifications May Change Without Notice