

	<b>CUMMINS INC.</b> Columbus, Indiana 47201		<b>Basic Engine Model</b>	<b>Curve No.</b>	G-Drive
			<b>QST30-G3</b>	<b>FR-5188</b>	
	<b>EXHAUST EMISSIONS DATA SHEET</b>		<b>Engine Critical Parts List</b>	<b>Date</b>	
			<b>CPL-2840</b>	<b>14-Feb-06</b>	
No of Cylinders: 12		Aspiration: Turbocharged and Aftercooled			
Bore: 140 mm (5.5 in.)		Stroke: 165 mm (6.50 in.)		Displacement: : 30.48.0 litre (1860 in <sup>3</sup> )	
Emissions Control devices: Turbocharged and Aftercooled					

Engine Speed	Standby Power		Prime Power		Continuous Power	
	RPM	kWm	BHP	kWm	BHP	kWm
<b>1500</b>	895	1200	806	1080	634	850
<b>1800</b>	1007	1350	910	1220	731	980

### Exhaust Emissions Data @ 1500 RPM

Component	Standby Power			Prime Power			Continuous Power		
	g/BHP-h	mg/m <sup>3</sup>	PPM	g/BHP-h	mg/m <sup>3</sup>	PPM	g/BHP-h	mg/m <sup>3</sup>	PPM
HC (Total Unburned Hydrocarbons)	0.2	95	150	0.19	90	145	0.25	105	165
NOx (Oxides of Nitrogen as NO <sub>2</sub> )	8.91	4560	2225	8.82	4510	2200	8.65	4425	2158
CO (Carbon Monoxide)	0.65	315	255	0.68	325	260	0.65	315	255
PM (Particulate Matter)	0.1			0.1			0.1		
SO <sub>2</sub> (Sulfur Dioxide)									

### Exhaust Emissions Data @ 1800 RPM

Component	Standby Power			Prime Power			Continuous Power		
	g/BHP-h	mg/m <sup>3</sup>	PPM	g/BHP-h	mg/m <sup>3</sup>	PPM	g/BHP-h	mg/m <sup>3</sup>	PPM
HC (Total Unburned Hydrocarbons)	0.25	120	195	0.27	125	197	0.25	125	197
NOx (Oxides of Nitrogen as NO <sub>2</sub> )	7.05	3695	1800	6.86	3475	1745	6.88	3625	1764
CO (Carbon Monoxide)	0.25	115	92	0.26	120	96	0.22	118	95
PM (Particulate Matter)	0.10			0.10			0.10		
SO <sub>2</sub> (Sulfur Dioxide)									

Note: mg/m<sup>3</sup> and PPM numbers are measured dry and corrected to 5% O<sub>2</sub> content.

**This Methods and Conditions:**

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 Specifications:**

46.5 Cetane Number, 0.035 Wt.% Max 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>O/lb) of dry air Humidity (required for NOx correction); Intake Restriction set to maximum allow-able 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.