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|--|--|---|---------------------------------|------------------------------|
|  | Cummins Inc. Columbus, Indiana 47201 | Basic Engine Model: KTA50-G3 | Curve Number: FR-6250 | G-DRIVE K50 1 |
| | EXHAUST EMISSIONS DATA SHEET | Engine Critical Parts List: CPL: 2227 | Date: 22Apr03 | |
| Displacement : 50.3 litre (3067 in³) | | Bore : 159 mm (6.25 in) Stroke : 159 mm (6.25 in) | | |
| No. of Cylinders : 16 | | Aspiration : Turbocharged and Aftercooled | | |

| Engine Speed | Standby Power Rating | | Prime Power Rating | | | | Continuous Power Rating | |
|--------------|----------------------|------|--------------------|------|----------------|------|-------------------------|------|
| | | | Limited Time | | Unlimited Time | | | |
| RPM | kWm | BHP | kWm | BHP | kWm | BHP | kWm | BHP |
| 1500 | 1227 | 1645 | 1150 | 1541 | 1097 | 1470 | 900 | 1206 |
| 1800 | 1380 | 1850 | 1300 | 1742 | 1220 | 1635 | 1000 | 1340 |

Exhaust Emissions Data @ 1500 RPM

| Component | Standby Power | | | Prime Power | | | Continuous Power | | |
|--|---------------|-------------------|------|-------------|-------------------|------|------------------|-------------------|------|
| | 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) | 0.13 | 55 | 110 | 0.12 | 50 | 100 | 0.10 | 42 | 90 |
| NOx (Oxides of Nitrogen as NO ₂) | 12.00 | 6100 | 2880 | 11.00 | 5500 | 2590 | 9.00 | 4500 | 2140 |
| CO (Carbon Monoxide) | 2.80 | 1400 | 1060 | 2.70 | 1400 | 1020 | 2.60 | 1300 | 930 |
| PM (Particulate Matter) | 0.08 | 40 | - | 0.09 | 35 | - | 0.11 | 55 | - |
| SO ₂ (Sulfur Dioxide) | 0.12 | 56 | 28 | 0.12 | 56 | 28 | 0.12 | 57 | 27 |

Exhaust Emissions Data @ 1800 RPM

| Component | Standby Power | | | Prime Power | | | Continuous Power | | |
|--|---------------|-------------------|------|-------------|-------------------|------|------------------|-------------------|------|
| | 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) | 0.12 | 45 | 90 | 0.12 | 45 | 100 | 0.13 | 50 | 100 |
| NOx (Oxides of Nitrogen as NO ₂) | 12.70 | 6300 | 3040 | 11.30 | 5700 | 2760 | 9.70 | 4800 | 2290 |
| CO (Carbon Monoxide) | 1.00 | 480 | 400 | 0.80 | 360 | 290 | 0.50 | 250 | 190 |
| PM (Particulate Matter) | 0.06 | 30 | - | 0.07 | 35 | - | 0.06 | 30 | - |
| SO ₂ (Sulfur Dioxide) | 0.12 | 59 | 29 | 0.12 | 58 | 28 | 0.13 | 56 | 28 |

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

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 H₂O/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.