California ATCM Tier 2 Emission Data
EPA Tier 2 Emission Data

CFP11E-F10 Fire Pump Driver

Type: 4 Cycle; In-Line; 6 Cylinder
Aspiration: Turbocharged, Charge Air Cooled

15 PPM Diesel Fuel

		Fuel Consumption		D2 Cycle Exhaust Emissions										Exhaust			
				Grams per BHP - HR					Grams per kW - HR					Temperature		Gas Flow	
RPM	BHP	Gal/Hr	L/hr	NMHC	NOx	NMHC+NOx	CO	PM	NMHC	NOx	NMHC+NOx	CO	PM	°F	°C	CFM	L/sec
1470	320	15.1	57.2											946	508	1663	785
1760	373	17.8	67.4	0.185	3.603	3.787	0.597	0.072	0.248	4.831	5.079	0.800	0.096	917	492	1943	917
2100	331	16	60.6											779	415	1857	877

The emissions values above are based on CARB approved calculations for converting EPA (500 ppm) fuel to CARB (15 ppm) fuel.

300-500 PPM Diesel Fuel

		Fuel Consumption		D2 Cycle Exhaust Emissions										Exhaust			
				Grams per BHP - HR					Grams per kW - HR					Temperature		Gas Flow	
RPM	BHP	Gal/Hr	L/hr	NMHC	NOx	NMHC+NOx	CO	PM	NMHC	NOx	NMHC+NOx	CO	PM	°F	°C	CFM	L/sec
1470	320	15.1	57.2											946	508	1663	785
1760	373	17.8	67.4	0.224	3.907	4.131	0.597	0.082	0.300	5.240	5.540	0.800	0.110	917	492	1943	917
2100	331	16.0	60.6											779	415	1857	877

QSM11 Base Model Manufactured by Cummins Inc.
- Using fuel rating 20091 (combination of FR2912 and FR 2940)

Reference EPA Standard Engine Family: 5CEXL0661

No special options needed to meet current emission regulations for all 50 states

Test Methods:

EPA/CARB Nonroad emissions recorded per 40CFR89 (ref. ISO8178-1) and weighted at load points prescribed in Subpart E, Appendix A, for Constant Speed Engines (ref. ISO8178-4, D2).

Diesel Fuel Specifications:

Cetane Number: 40-48
Reference: ASTM D975 No. 2-D

Reference Conditions:

Air Inlet Temperature: 25°C (77°F)
Fuel Inlet Temperature: 40°C (104°F)
Barometric Pressure: 100 kPa (29.53 in Hg)
Humidity: 10.7 g/kg (75 grains H_2O/lb) of dry air; required for NOx correction
Restrictions: Intake Restriction set to a maximum allowable limit for clean filter; Exhaust Back Pressure set to maximum allowable limit.

Tests conducted using alternate test methods, instrumentation, fuel or reference conditions can yield different results.

The data was obtained by using two fuel ratings 2912 (for the 2100 rating) and 2940 (for the 1470 and 1760 ratings). The highest exhaust emissions for either fuel rating are stated above.

Revision:

April 2008 - listed NMHC and NOx separately
April 2008 - Update EPA Engine Family to 5CEXL0661AAE
August 2008 - Correct RPM data error