

CATERPILLAR INC.

EXECUTIVE ORDER U-R-001-0367New Off-Road
Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR ENGINE FAMILY		DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)				
2009	.9CPXL106.T2E	84.7	Diesel 8000					
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION					
Direct Dies Smok	sel Injection, Turbocharge te Puff Limiter and Engine	er, Charge Air Cooler, e Control Module	Generator					

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION			E	XHAUST (g/kw-l	OPACITY (%)				
	STANDARD CATEGORY		нс	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
KW > 560	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	N/A	N/A	N/A
	}	CERT			6.2	1.9	0.16			

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this

_ day of January 2009.

Annette Hebert, Chief

Mobile Source Operations Division

ATTACHMENT 1 OF I

Engine Model Summary Template U-R-001-0367

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque		9.Emission Control queDevice Per SAE J1930
8CPXL106.T2E	1	C175-16	4422 @ 1800	935.8	1511.5	12902.4 @	NA	NA	ECTHEM, DI, TA SPL
8CPXL106.T2E	2	C175-16	4034 @ 1800	837.0	1351.9	11770.3 @	NA	NA_	ECM EM, DI, TA, SPL
8CPXL106.T2E	3 · ·	C175-16	3717 @ 1800	764.7	1235.2	10845.4 @	NA	NA	ECM EM, DI, TA, SPL

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9CPXL106.T2E	2	C175-16	4034 @ 1800	837.0	1351.9	11770.3 @	NA	NA	EM,DI,TA	
9CPXL106.T2E	3	C175-16	3717 @ 1800	764.7	1235.2	10845.4 @	NA	NA	EM,DI,TA	
9CPXL106.T2E	4	C175-16	2588 @ 1200	759.8	811.7	15 3 63.7 @	NA	NA	EM,DI,TA	

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