CATERPILLAR INC.

EXECUTIVE ORDER U-R-001-0361 New 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 engines and emission control systems 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	9CPXL32.0ESW	32.0	. Diesel	8000			
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS				TYPICAL EQUIPMENT APPLICATION			
Direct Dies	sel Injection, Turbocharge Engine Control Mo	er, Charge Air Cooler, dule	Generator and Industrial Equipment				

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, 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	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER CLASS			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
		FEL	N/A	N/A	5.8	N/A	0.15	N/A	N/A	N/A
		CERT			5.4	1.6	0.13			

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

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

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Engine Model Summary Template U-R-001-036

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 eDevice Per SAE J1930
9CPXL32.0ESW	Cert Test 2	C32	1330@1500	462	466.3	NA	NA ·	NA	EM, DI, TC, ECIM
9CPXL32.0ESW	11	C32	1502@1800	418	506.3	NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	22	C32	1357@1800	374	453.1	NA NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	3 Cert Engine	C32	1330@1500	469	473	NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	4	C32	1357@1800	374	453.1	NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	5	C32	1502@1800	418	506.3	NA ·	NA	NA	EM, DI, TC,
9CPXL32.0ESW	66	C32	1257@1800	356	431.2	NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	7	C 3 2	1126@1800	. 324	392.1	NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	8	C32	1502@1800	418	506.3	NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	99	C32	1330@1500	469	473	NA .	NA	NA	EM, DI, TC,
9CPXL32.0ESW	10	C32	1502@1800	418	506.3	NA NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	11	C32	1330@1500	469	473	NA	NA	NA NA	EM, DI, TC,
9CPXL32.0ESW	12	C32	1257@1800	356	431.2	NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	13	C32	1110@1500	408	412.2	NA NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	14	C32	1357@1800	385	466	NA	NA	NA NA	EM, DI, TC,
9CPXL32.0ESW	15	C32	1357@1800	385	466	NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	16	C32	1502@1800	429	519	NA NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	17	C32	1502@1800	429	519	NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	18	C32	1257@1800	363	440	NA	NA	NA	EM, DI, TC,
9CPXL32.0ESW	19	C32	1126@1800	333	403	NA	NA	NA	EM, DI, TC,

ECM por all medels