

CATERPILLAR INC.

EXECUTIVE ORDER U-R-001-0340 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)
2008	8CPXL27.0ESW	27.0	Diesel	8000
	FEATURES & EMISSION		TYPICAL EQUIPMENT A	
Direct Die	sel Injection, Turbocharg Engine Control Mo	er, Charge Air Cooler, odule	Generator	

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		-	-	EXHAUST (g/kw-l	ar)		OF	PACITY (%	6)
POWER CLASS	STANDARD		HC	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	6.3	N/A	0.19	N/A	N/A	N/A
		CERT			5.2	1.3	0.14			

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 March 2008.

Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Template

ATTACHMENT 1 OF 1

4-8-001-0240

Engine Family	Engine Family 1.Engine Code 2.Engine Model	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: 5.Fuel Rate: mm/stroke @ peak HP (lbs/hr) @ peak HP (for diesel only) (for diesels only)		6.Torque @ RPM (SEA Gross)	7.Fuel Kate: mm/stroke@peak torque	8.Fuel Rate: 9.Emission Control (Ibs/hr)@peak torqueDevice Per SAE J1930	9.Emission Control evice Per SAE J1930
3CPXL27.0ESW	1 Cert Engine	C27	1214@1800	332	401.5	NA	NA	NA ECM	EM, DI, TC, CAC
3CPXL27.0ESW	2	C27	1214@1800	307	372.4	NA	NA	N	EM, DI, TC,
SCPXL27.0ESW	8	C27	1141@1800	311	376.9	NA	NA	W	EM, DI, TC,
SCPXL27.0ESW	4	C27	1141@1800	289	349.5	NA	MA	AN	EM, DI, TC,
SCPXL27 0ESW	5	C27	1069@1800	291	352.1	W	NA	AN MARKET CONTRACTOR OF THE PARTY OF THE PAR	EM, DI, TC,
SCPXL27.0ESW	9	C27	1069@1800	269	325.8	AM	AN MANAGEMENT	¥N	EM, DI, TC,
3CPXL27.0ESW	<u> </u>	C27	998@1800	27.1	328.3	NA	NA	NA	EM, DI, TC,
3CPXL27.0ESW	œ	C27	998@1800	256	310.5	AN	NA	A	EM, DI, TC,
SOPXL27.0ESW	6	C27	1214@1800	332	401.5	NA	NA	Ą	EM, DI, TC,
SCPXL27.0ESW	10	C27	1214@1800	332	401.5	NA	NA	Ą	EM, DI, TC,
8CPXL27.0ESW		C27	1141@1800	311	376.9	NA	NA	Ą	EM, DI, TC,
3CPXL27.0ESW	12	C27	1069@1800	291	352.1	NA	NA	Ā	EM, DI, TC,
SCPXL27.0ESW	13	C27	998@1800	271	328.3	NA A	NA	NA AN	EM, DI, TC,
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