

CATERPILLAR INC.

EXECUTIVE ORDER U-R-001-0380-1 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)			
2010	ACPXL18.1ESW	18.1	Diesel	8000			
	FEATURES & EMISSION	CONTROL SYSTEMS	TYPICAL EQUIPMENT APPLICATION				
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 STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
POWER			HC	NOx	NMHC+NOx	со	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	6.2	N/A	0.09	N/A	N/A	N/A
		CERT			5.8	0.8	0.08			

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).

This Executive Order hereby cancels and replaces Executive Order U-R-001-0380 dated October 23, 2009.

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 ______ 30 ##_ day of August 2010.

Annette Hebert, Chief

Mobile Source Operations Division

ATTACHMENTIOFI Engine Model Summary Template U-R-001-0380-1 8/18/2010

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HF (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 Device Per SAE J1930
ACPXL18.1ESW	Cert Test 2	C18	923@1800	532	322.3	NA	NA	NA E	M EM, DI, TC, eAe
ACPXL18.1ESW	1 Cert Engine	C18	923@1800	517	313.1	. NA	NA	NA	EM, DI, TC,
ACPXL18.1ESW	2	C18	923@1800	510	309	NA	NA	NA	EM, DI, TC,
ACPXL18.1ESW	3	C18	923@1800	510	309	NA	· NA	NA	EM, DI, TC,
ACPXL18.1ESW	4	C18	861@1800	479	289.7	NA	· NA	NA	EM, DI, TC,
ACPXL18.1ESW	5	C18	861@1800	479	. 289.7	NA	NA	NA	EM, DI, TC,
ACPXL18.1ESW	6	C18	923@1800	510	309	NA	- NA ,	NA	EM, DI, TC,
ACPXL18.1ESW	7	C18	861@1800	479	289.7	NA	NA	NA	EM, DI, TC,
ACPXL18.1ESW	8	C18	923@1800	510	309	NA	NA	NA 	EM, DI, TC,
ACPXL18.1ESW	9	, C18	861@1800	479	289.7	NA	NA	NA	EM, DI, TC,
ACPXL18.1ESW	10	C18	923@1800	510	309	NA.	NA	NA V	EM, DI, TC,