CATERPILLAR INC.

EXECUTIVE ORDER U-R-001-0427 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)		
2012	CCPXL09.3HPB	9.3	Diesel	8000		
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION			
Coo	ic Direct Injection, Turboler, Engine Control Modu Recirculation, Periodic Tr	le, Exhaust Gas	Loader, Tractor, Motor Grade, Agriculture Combine, Excavator, Commercial 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 Tier 4 Interim ALT NOx		EXHAUST (g/kw-hr)				OPACITY (%)			
POWER CLASS			НС	NOx	NMHC+NOx	со	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560		STD	0.19	2.0	N/A	3.5	0.02	N/A	N/A	N/A
		FEL	N/A	1.8	N/A	N/A	0.01	N/A	N/A	N/A
		CERT	0.07	1.6		0.2	0.004			

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 October 2011.

Annette Hebert, Chief

Mobile Source Operations Division

RIC ATTACHMENTIOF!

Engine Model Summary Template

U-R-001-0427 5/1/2012

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	8.Fuel Ra (lbs/hr)@p torque	peak 9.Emission Control
CCPXL09.3HPB	Cert Test 1	C9.3	361@1900	193	123	1252@1400	249	117	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	Cert Test 2	C9.3	409@1900	. 226	144	1413@1400	305	144	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	1A - 361/1900	C9.3	361@1900	193	123	1252@1400	249	117	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	2B - 224/2100	C9.3	202@2150	111	80	853@1000	175	59	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	3B - 244/2100	C9.3	220@2150	127	92	934@1000	175	59	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	4B - 264/2100	C9.3	239@2150	133	96	1013@1000	183	62	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	5B - 284/2100	C9.3	256@2150	138	100	1094@1000	228	77	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	6B - 316/1800	C9.3	272@1880	164	104	1049@1600	208	105	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	7B - 316/1800	C9.3	272@1880	164	104	1049@1600	203	102	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	8B - 249/1300	C9.3	162@2080	93	65	994@1300	192	89	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	9B - 290/1900	C9.3	207@2250	115	87	887@1400	166	78	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	10A - 409/1900	C9.3	409@1900	226	144	1413@1400	305	144	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	11B - 321/1900	C9.3	321@1900	175	112	1111@1400	217	102	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	12B - 326/1700	C9.3	239@2300	134	103	1047@1600	208	112	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	13B - 326/1700	C9.3	239@2300	134	103	1047@1600	208	112	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	14B - 31 4 /1900	C9.3	232@2275	134	103	1042@1400	203	97	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	15A - 409/1900	C9.3	409@1900	226	144	1410@1400	305	144	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	16B - 224/2100	C9.3	202@2150	111	80	853@1000	175	59	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	17B - 244/2100	C9.3	220@2150	127	92	934@1000	175	59	DFI,TC,ECM,CAC,EGR,PTOX,OC
CCPXL09.3HPB	18B - 249/1300	C9.3	162@2080	93	65	994@1300	192	89	DFI,TC,ECM,CAC,EGR,PTOX,OC