EXECUTIVE ORDER U-R-001-0407 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)
2011	BCPXL15.2ESW	15.2	Diesel	8000
	FEATURES & EMISSION (TYPICAL EQUIPMENT APPLIC	ATION
Electron	ic Direct Injection, Turboo Cooler, Engine Control	charger, Charge Air Module	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				EXHAUST (g/kw	r-hr)		OF	PACITY (%	5)
POWER CLASS	STANDARD CATEGORY		HC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
130 <u>≤</u> kW <u>≤</u> 560	Tier 4 ALT 20% NOX and PM	STD	0.19	2.0	N/A	3.5	0.02	20	15	50
		FEL	N/A	3.8		N/A	0.20	N/A	N/A	N/A
		CERT	0.08	3.2		2.8	0.18	14	5	19

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 2011.

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Annette Hebert, Chief

Mobile Source Operations Division

Engine Model Summary Template

ATTACHMENT 10F1

4-R-001-0407 12/20/2010

357 216 2005@1400 415 288 193.8 1736@1400 351 1 295 179 1711@1300 345 271 164 1537@1300 310	LEngine Cod	O)	Engine Family 1.Engine Code 2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	4.Fuel Rate: 5.Fuel Rate: 5.Fuel Rate: stroke @ peak HP (lbs/hr) @ peak HP 6.Torque @ RPM for diesel only) (SEA Gross)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torqu	8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torqueDevice Per SAE J1930
288 193.8 1736@1400 351 165.5 295 179 1711@1300 345 151 271 164 1537@1300 310 136	Cert Test 1 C15 595@1800	Control of colds for section	595@18(8	357	216	2005@1400	415	195 €	195 ECM EM, DI, TC, CAC
295 179 1711@1300 345 151 271 164 1537@1300 310 136	1 C15 540@2000	manageon en general personal p	540@2000		288	193.8	1736@1400	351	165.5	EM,DI,TC,
271 164 1537@1300 310 136	2 C15 511@1800	Maria de Albania de Vallando de La Maria d	511@1800	_ 1	295	179	1711@1300	345	151	EM,DI,TC,
	3 C15 460@1800		460@1800		27.1	164	1537@1300	310	136	y EM,DI,TC, ↓