EXECUTIVE ORDER U-R-015-0289

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-14-012;

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)		
2015	FFPXL08.7CLA	8.7	Diesel	8000		
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION			
Electror Turboch Catalyst, S	nic Direct Injection, Engli narger, Charge Air Coole elective Catalytic Reduc Oxidation Catal	r, Diesel Oxidation tion - Urea, Ammonia	Loader, Tractor, and Other Industrial Equipment			

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for non-methane hydrocarbon (NMHC), 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-hr)					OPACITY (%)		
POWER CLASS	STANDARD CATEGORY		NMHC	NOx	NMHC+NOx	co	PM	ACCEL	LUG	PEAK
130 ≤ kW ≤ 560	Tier 4 Final	STD	0.19	0.40	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.01	0.22		0.04	0.01			

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

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

day of August 2014.

## **Engine Model Summary Template**

Aflackment pg 1/1

8/7/2014

U-12-015-0289

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 Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930	
FFPXL08.7CLA	F2CFE614A*B	F2CFE614A*B	409 @ 2000	200	N/A	1370 @ 1400	248	N/A	DDI ECM TC CAC DOC SCR-u AMOX	
FFPXL08.7CLA	F2CFE614J*B	F2CFE614J*B	419 @ 2000	205	N/A	1370 @ 1400	244	N/A	DDI ECM TC CAC DOC SCR-u AMOX	
FFPXL08.7CLA	F2CFE614K*B	F2CFE614K*B	403 @ 2000	196	N/A	1334 @ 1400	241	N/A	DDI ECM TC CAC DOC SCR-u AMOX	
FFPXL08.7CLA	F2CFE614L*B	F2CFE614L*B	379 @ 2000	184	N/A	1309 @ 1400	235	N/A	DDI ECM TC CAC DOC SCR-u AMOX	
FFPXL08.7CLA	F2CFE614M*B	F2CFE614M*B	346 @ 2000	168	N/A	1235 @ 1400	221	N/A	DDI ECM TC CAC DOC SCR-u AMOX	
FFPXL08.7CLA	F2CFE614N*B	F2CFE614N*B	312 @ 2000	152	N/A	1164 @ 1400	208	N/A	DDI ECM TC CAC DOC SCR-u AMOX	ennere de men de malamental de l'Anne d'Alle d'Ed de la minde de l'Anne d'Anne d'Anne d'Anne d'Anne d'Anne d'A