

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	FFPXL06.7SDA	4.5, 6.7	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Engine Control Module, Turbocharger, Charge Air Cooler, Diesel Oxidation Catalyst, Selective Catalytic Reduction - Urea, Ammonia Oxidation Catalyst			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 POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			NMHC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ 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	0.02	--	--	--

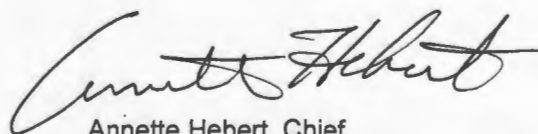
BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has complied with the more stringent set of standards from the various power categories in conformance with Section 1039.230 (e) of the "California Exhaust Emission Standards and Test Procedures for 2008 and Later Tier 4 Off-Road Compression-Ignition Engines, Part I-C" adopted October 20, 2005 and last amended October 25, 2012.

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 20 day of August 2014.



Annette Hebert, Chief
 Emissions Compliance, Automotive Regulations and Science Division

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Engine Model Summary Template

Tested

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
FFPXL06.7SDA	F4HFE813R*B	F4HFE813R*B	245 @ 2000	130	N/A	963 @ 1300	188	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE813X*B	F4HFE813X*B	226 @ 2000	111	N/A	742 @ 1500	135	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE813S*B	F4HFE813S*B	226 @ 2000	116	N/A	877 @ 1300	162	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE813J*B	F4HFE813J*B	221 @ 2200	106	N/A	767 @ 1500	144	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4DFE813J*B	F4DFE813J*B	221 @ 2200	106	N/A	767 @ 1500	144	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE813G*B	F4HFE813G*B	210 @ 2200	102	N/A	878 @ 1600	127	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE813K*B	F4HFE813K*B	202 @ 2200	97	N/A	696 @ 1500	129	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4DFE813K*B	F4DFE813K*B	202 @ 2200	97	N/A	696 @ 1500	129	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4DFE813M*B	F4DFE813M*B	188 @ 2200	94	N/A	648 @ 1500	122	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE813D*B	F4HFE813D*B	235 @ 2100	115	N/A	781 @ 1500	144	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE813B*B	F4HFE813B*B	256 @ 2200	118	N/A	859 @ 1500	157	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4DFE813B*B	F4DFE813B*B	256 @ 2200	118	N/A	859 @ 1500	157	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE813E*B	F4HFE813E*B	268 @ 2100	130	N/A	887 @ 1800	163	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE813C*B	F4HFE813C*B	275 @ 2100	133	N/A	881 @ 1800	164	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4DFE813H*B	F4DFE813H*B	236 @ 2200	106	N/A	815 @ 1500	148	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE813H*B	F4DHE813H*B	236 @ 2200	106	N/A	815 @ 1500	148	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE813F*B	F4HFE813F*B	284 @ 2200	131	N/A	859 @ 1500	155	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE813A*B	F4HFE813A*B	251 @ 2200	115	N/A	789 @ 1600	143	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE813U*B	F4HFE813U*B	251 @ 2200	118	N/A	859 @ 1500	157	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE8131*B	F4HFE8131*B	281 @ 2200	130	N/A	852 @ 1500	154	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE8134*B	F4HFE8134*B	295 @ 2200	139	N/A	861 @ 1700	163	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE413V*B	F4HFE413V*B	173 @ 2100	129	N/A	526 @ 1500	148	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE413W*B	F4HFE413W*B	162 @ 2100	120	N/A	519 @ 1500	146	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE413H*B	F4HFE413H*B	150 @ 2200	111	N/A	489 @ 1600	137	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4DFE413H*B	F4DFE413H*B	150 @ 2200	111	N/A	489 @ 1600	137	N/A	DDI ECM TC CAC DOC SCR-u AMOX
FFPXL06.7SDA	F4HFE4134*B	F4HFE4134*B	129 @ 2200	91	N/A	437 @ 1500	124	N/A	DDI ECM TC CAC DOC SCR-u AMOX

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Engine Model Summary Template

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
FFPXL06.7SDA	F4DFE4134*B	F4DFE4134*B	129 @ 2200	91	N/A	437 @ 1500	124	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4HFE4133*B	F4HFE4133*B	138 @ 2200	98	N/A	471 @ 1500	132	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4DFE4133*B	F4DFE4133*B	138 @ 2200	98	N/A	471 @ 1500	132	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4HFE4131*B	F4HFE4131*B	158 @ 2200	112	N/A	519 @ 1500	145	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4DFE4131*B	F4DFE4131*B	158 @ 2200	112	N/A	519 @ 1500	145	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4HFE4132*B	F4HFE4132*B	153 @ 2200	109	N/A	519 @ 1500	145	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4DFE4132*B	F4DFE4132*B	153 @ 2200	109	N/A	519 @ 1500	145	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4HFE413X*B	F4HFE413X*B	142 @ 2100	105	N/A	453 @ 1500	127	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4HFE413K*B	F4HFE413K*B	168 @ 2200	120	N/A	526 @ 1500	149	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4DFE413K*B	F4DFE413K*B	168 @ 2200	120	N/A	526 @ 1500	149	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4HFE6136*B	F4HFE6136*B	176 @ 2200	83	N/A	616 @ 1500	114	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4DFE6136*B	F4DFE6136*B	176 @ 2200	83	N/A	616 @ 1500	114	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4HFE6137*B	F4HFE6137*B	208 @ 2100	100	N/A	685 @ 1500	125	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4DFE414B*B	F4DFE414B*B	133 @ 2200	97	N/A	448 @ 1500	127	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4DFE414C*B	F4DFE414C*B	123 @ 2200	90	N/A	415 @ 1500	118	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4DFE414D*B	F4DFE414D*B	114 @ 2200	85	N/A	391 @ 1500	111	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4DFE414E*B	F4DFE414E*B	143 @ 2200	101	N/A	481 @ 1500	132	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4DFE617L*B	F4DFE617L*B	296 @ 2100	142	N/A	950 @ 1400	179	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4DFE617M*B	F4DFE617M*B	267 @ 2100	128	N/A	894 @ 1400	167	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4HFE613M*B	F4HFE613M*B	188 @ 2200	94	N/A	648 @ 1500	122	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4HFE615B*B	F4HFE615B*B	194 @ 1800	99	N/A	570 @ 1500	99	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4HFE615C*B	F4HFE615C*B	224 @ 1800	114	N/A	656 @ 1500	114	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4HFE615D*B	F4HFE615D*B	261 @ 1800	130	N/A	767 @ 1500	130	N/A	DDI ECM TC CAC DOC SCR-4 AMOX
FFPXL06.7SDA	F4HFE615E*B	F4HFE615E*B	299 @ 1800	150	N/A	876 @ 1500	150	N/A	DDI ECM TC CAC DOC SCR-4 AMOX

Added

RP 5/1/15