

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)
2013	DCEXL08.9AAH	8.9	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Electronic Control Module, Exhaust Gas Recirculation, Diesel Oxidation Catalyst, and Periodic Trap Oxidizer			Crane, Loader, Tractor, Dozer, Pump, Compressor, and Generator Set	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) 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):

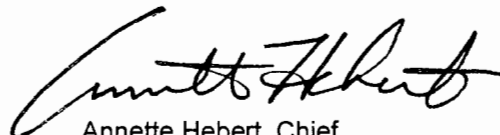
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ kW < 560	Interim Tier 4 /ALT NOx	STD	0.19	2.0	N/A	3.5	0.02	N/A	N/A	N/A
		CERT	0.03	1.5	--	0.1	0.001	--	--	--

**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 2 day of August 2012.



Annette Hebert, Chief  
 Mobile Source Operations Division

U-R-002-0589

Attachment 10/11 7/20/2012

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 Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
EXL08.9AAH	3600:FR92426	QSL8.9	380@2100	193	135	1200@1500	237	118.5	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3600:FR93004	QSL8.9	365@2100	185	130	1113@1500	219	109.7	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3600:FR92615	QSL8.9	340@1800	200	120	1100@1400	222	103.5	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3600:FR92611	QSL8.9	350@2100	177	124	1100@1500	213	106.3	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3144:FR92612	QSL8.9	320@2100	166	116	1050@1500	208	104.1	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3144:FR92665	QSL8.9	300@2100	158	110	1020@1500	203	101.5	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3144:FR92966	QSL8.9	320@2200	160	117	1020@1500	195	97.6	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3144:FR92661	QSL8.9	290@2200	149	109	1000@1500	190	95.2	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3144:FR93007	QSL8.9	300@2000	162	108	1000@1450	200	96.4	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3144:FR92616	QSL8.9	320@1800	185	111	1000@1400	195	90.8	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3175:FR92967	QSL8.9	275@2200	134	98	895@1500	159	79.6	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3175:FR92968	QSL8.9	260@2200	134	98	835@1500	159	79.8	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3175:FR93005	QSL8.9	250@2200	141	100	768@1600	171	83.9	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3175:FR92664	QSL8.9	230@2200	132	93	670@1600	142	71.3	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3175:FR92613	QSL8.9	300@2000	166	106	1070@1400	210	101	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3175:FR93006	QSL8.9	285@2000	160	102	1070@1400	210	101.2	DDI,ECM,TC,CAC,EGR, PTOX,OC
EXL08.9AAH	3175:FR92614	QSL8.9	265@2000	151	96	800@1400	156	73.1	DDI,ECM,TC,CAC,EGR, PTOX,OC