

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	DCEXL15.0AAK	15.0	Diesel	8000
<b>SPECIAL FEATURES &amp; EMISSION CONTROL SYSTEMS</b>			<b>TYPICAL EQUIPMENT APPLICATION</b>	
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 and Compressor	

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
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	0.01	1.8	--	0.02	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 10 day of September 2012.



Annette Hebert, Chief  
 Mobile Source Operations Division

U-R-002-0592

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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
EXL15.0AAK	3350:FR10762	QSX15-C	600@1800	358	217	2050 @ 1400	402	190	DDI, TC, CAC,
EXL15.0AAK	3350:FR10780	QSX15-C	450@1800	268	163	1500 @ 1400	289	137	DDI, TC, CAC,
EXL15.0AAK	3350:FR10778	QSX15-C	500@1800	297	180	1600 @ 1400	314	148	DDI, TC, CAC,
EXL15.0AAK	3350:FR10777	QSX15-C	525@1800	309	188	1750 @ 1400	345	163	DDI, TC, CAC,
EXL15.0AAK	3350:FR10776	QSX15-C	550@1800	324	196	1750 @ 1400	345	163	DDI, TC, CAC,
EXL15.0AAK	3350:FR10775	QSX15-C	575@1800	340	206	1950 @ 1400	384	181	DDI, TC, CAC,
EXL15.0AAK	3350:FR10768	QSX15-C	400@2100	213	151	1500 @ 1400	289	137	DDI, TC, CAC,
EXL15.0AAK	3350:FR10766	QSX15-C	450@2100	241	171	1700 @ 1400	338	159	DDI, TC, CAC,
EXL15.0AAK	3350:FR10765	QSX15-C	500@2100	266	188	1850 @ 1400	364	172	DDI, TC, CAC,
EXL15.0AAK	3350:FR10764	QSX15-C	535@2100	285	202	1950 @ 1400	384	181	DDI, TC, CAC,
EXL15.0AAK	3350:FR10763	QSX15-C	550@2100	293	208	2050 @ 1400	397	187	DDI, TC, CAC,
EXL15.0AAK	3350:FR10985	QSX15-C	580@2100	311	220	2050 @ 1400	402	190	DDI, TC, CAC,

ECM, EGR, UC, PEX, DIE, TC, CAC

