



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)
2012	CCPXL11.1ESJ	11.1	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Electronic Direct Injection, Turbocharger, Charge Air Cooler, Engine Control Module			Articulated Truck, Road Reclaimer	

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 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 20% NOx + NMHC	STD	N/A	N/A	2.1	3.5	0.02	20	15	50
		FEL	N/A	N/A	4.0	N/A	0.20	N/A	N/A	N/A
		CERT	--	--	3.6	3.3	0.20	18	3	33

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 the listed engines are conditionally certified to the Interim Tier 4 ALT NOx+NMHC standards based on the amendments to 13 CCR Section 2423, table 1b adopted by the Board on December 16, 2011. This determination is conditional on the amendments being adopted by the Executive Officer and approved by the Office of Administrative Law. If the amendments do not become effective, the manufacturer shall be required to certify this engine family pursuant to table 1b of 13 CCR Section 2423, as that table existed on December 16, 2011 within 45 days after notification by ARB or this Executive Order may be revoked and voided ab initio.

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 29th day of December 2011.

M. Hebert FOR AGH
Annette Hebert, Chief
Mobile Source Operations Division

Engine Model Summary Template

U-R-001-0446

12-22-2011

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
CCPXL11.1ESJ	Cert Test 2	C11	450@1800	266	161	1507@1350	301	137	EM,DI,TC,ECM,CAC
CCPXL11.1ESJ	Cert Test 1	C11	450@1800	256	155	1509@1400	297	140	EM,DI,TC,ECM,CAC
CCPXL11.1ESJ	1	C11	325@1800	187	113	1125@1300	226	99	EM,DI,TC,ECM,CAC
CCPXL11.1ESJ	2	C11	350@1800	204	123	1181@1400	238	112	EM,DI,TC,ECM,CAC
CCPXL11.1ESJ	3	C11	264@1800	159	96	929@1000	194	65	EM,DI,TC,ECM,CAC
CCPXL11.1ESJ	4	C11	270@1800	160	97	949@1000	196	66	EM,DI,TC,ECM,CAC
CCPXL11.1ESJ	5	C11	275@1800	164	99	968@1000	202	68	EM,DI,TC,ECM,CAC
CCPXL11.1ESJ	6	C11	280@1800	167	101	988@1000	206	69	EM,DI,TC,ECM,CAC
CCPXL11.1ESJ	7	C11	286@1800	168	102	1008@1000	210	71	EM,DI,TC,ECM,CAC
CCPXL11.1ESJ	8	C11	291@1800	171	103	1027@1000	210	71	EM,DI,TC,ECM,CAC
CCPXL11.1ESJ	9	C11	296@1800	174	105	1047@1000	213	72	EM,DI,TC,ECM,CAC
CCPXL11.1ESJ	10	C11	302@1800	177	107	1067@1000	220	76	EM,DI,TC,ECM,CAC
CCPXL11.1ESJ	11	C11	308@1800	179	109	1055@1300	214	94	EM,DI,TC,ECM,CAC