

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 December 15, 1998 Settlement Agreement between the Air Resources Board and the manufacturer, and any modifications thereof to the Settlement Agreement;

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 engine and emission control system 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)
2008	8CPXL27.0ESX	27.0	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler and Engine Control Module			Generator and Industrial Equipment	

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
KW > 560	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	20	15	50
		CERT	--	--	5.5	1.0	0.08	14	1	21

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 December 2007.



Annette Hebert, Chief
 Mobile Source Operations Division

Engine Model Summary Template

ATTACHMENT 1 OF 1

U-R-001-0330

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 J1939
8CPXL27.0ESX	1	C27	1150@2100	282	298.9	3876@1400	379	357.4	EM, DI, TC, ECM
8CPXL27.0ESX	2	Cert Engine	1151@2100	277	391.7	3876@1400	375	353	EM, DI, TC,
8CPXL27.0ESX	3	C27	1150@1800	325	393.9	3876@1400	379	357.4	EM, DI, TC,
8CPXL27.0ESX	4	C27	950@2100	233	328.7	3202@1400	317	298.2	EM, DI, TC,
8CPXL27.0ESX	5	C27	950@1800	266	321.8	3202@1400	317	298.2	EM, DI, TC,
8CPXL27.0ESX	6	C27	1050@2100	261	368.3	3539@1400	343	323	EM, DI, TC,
8CPXL27.0ESX	7	C27	1050@1800	298	360.6	3539@1400	343	323	EM, DI, TC,
8CPXL27.0ESX	8	C27	1214@1800	332	401.5	NA	NA	NA	EM, DI, TC,
8CPXL27.0ESX	9	C27	1214@1800	307	372.4	NA	NA	NA	EM, DI, TC,
8CPXL27.0ESX	10	C27	1141@1800	311	376.9	NA	NA	NA	EM, DI, TC,
8CPXL27.0ESX	11	C27	1141@1800	289	349.5	NA	NA	NA	EM, DI, TC,
8CPXL27.0ESX	12	C27	1069@1800	291	352.1	NA	NA	NA	EM, DI, TC,
8CPXL27.0ESX	13	C27	1069@1800	269	325.8	NA	NA	NA	EM, DI, TC,
8CPXL27.0ESX	14	C27	998@1800	271	328.3	NA	NA	NA	EM, DI, TC,
8CPXL27.0ESX	15	C27	998@1800	256	310.5	NA	NA	NA	EM, DI, TC,
8CPXL27.0ESX	16	C27	1214@1800	332	401.5	NA	NA	NA	EM, DI, TC,
8CPXL27.0ESX	17	C27	778@2000	195	262.7	2367@1300	230	201.6	EM, DI, TC,
8CPXL27.0ESX	18	C27	787@2000	198	266	2437@1600	228	245.6	EM, DI, TC,
8CPXL27.0ESX	19	C27	789@1800	215	260.5	2568@1200	253	204.2	EM, DI, TC,
8CPXL27.0ESX	20	C27	800@2100	200	282.3	2697@1400	265	249.9	EM, DI, TC,
8CPXL27.0ESX	21	C27	800@1800	223	270.6	2697@1400	265	249.9	EM, DI, TC,
8CPXL27.0ESX	22	C27	875@2100	217	307.1	2950@1400	288	270.8	EM, DI, TC,
8CPXL27.0ESX	23	C27	875@1800	242	293	2950@1400	288	270.8	EM, DI, TC,
8CPXL27.0ESX	24	C27	1214@1800	332	401.5	NA	NA	NA	EM, DI, TC,
8CPXL27.0ESX	25	C27	1141@1800	311	376.9	NA	NA	NA	EM, DI, TC,
8CPXL27.0ESX	26	C27	1069@1800	291	352.1	NA	NA	NA	EM, DI, TC,
8CPXL27.0ESX	27	C27	998@1800	271	328.3	NA	NA	NA	EM, DI, TC, ✓