

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)
2009	9CPXL08.8ESK	8.8	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler and Engine Control Module			Tractor, Loader, Dozer, 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
130 ≤ KW < 450	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT	--	--	3.7	1.3	0.18	17	7	27

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 15 day January 2009.



Annette Hebert, Chief
 Mobile Source Operations Division

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
9CPXL08.8ESK	Cert Test 1	C9	480@1800	265	160	NA	NA	NA	EM, DI, TC,
9CPXL08.8ESK	Cert Test 2	C9	480@1800	269	162.9	NA	NA	NA	EM, DI, TC,
9CPXL08.8ESK	1	C9	375@1800	209	126.5	1250@1400	246	116.0	EM, DI, TC,
9CPXL08.8ESK	2	C9	330@2100	168	118	1173@1400	227	107	EM, DI, TC,
9CPXL08.8ESK	3	C9	286@2000	153	103	885@1400	181	85	EM, DI, TC,
9CPXL08.8ESK	4	C9	258@2000	138	93	795@1400	162	76	EM, DI, TC,
9CPXL08.8ESK	5	C9	350@2100	178	125.4	1029@1400	208	98.1	EM, DI, TC,
9CPXL08.8ESK	6	C9	228@1850	136	84.5	980@1300	185	80.7	EM, DI, TC,
9CPXL08.8ESK	7	C9	325@2200	162	119.6	1095@1400	222	104.6	EM, DI, TC,
9CPXL08.8ESK	8	C9	330@2100	176	124.6	1173@1400	235	110.8	EM, DI, TC,
9CPXL08.8ESK	9	C9	311@2100	166	117.0	1106@1400	231	109.0	EM, DI, TC,
9CPXL08.8ESK	10	C9	278@2100	147	104.0	988@1400	204	96.0	EM, DI, TC,
9CPXL08.8ESK	11	C9	311@2100	163	115.0	1106@1400	226	106.0	EM, DI, TC,
9CPXL08.8ESK	12	C9	275@2200	139	103.0	927@1400	186	88	EM, DI, TC,
9CPXL08.8ESK	13	C9	300@2200	149	110.0	1011@1400	200	94	EM, DI, TC,
9CPXL08.8ESK	14	C9	350@2200	176	130	1148@1400	229	108	EM, DI, TC,
9CPXL08.8ESK	15	C9	480@1800	265	160.0	NA	NA	NA	EM, DI, TC,
9CPXL08.8ESK	16	C9	398@1800	226	137.0	NA	NA	NA	EM, DI, TC,
9CPXL08.8ESK	17	C9	480@1800	265	160.0	NA	NA	NA	EM, DI, TC,
9CPXL08.8ESK	18	C9	398@1800	226	137.0	NA	NA	NA	EM, DI, TC,
9CPXL08.8ESK	19	C9	286@2000	155	104	885@1400	184	87	EM, DI, TC,
9CPXL08.8ESK	20	C9	303@2000	166	112	999@1200	228	92	EM, DI, TC,
9CPXL08.8ESK	21	C9	228@1850	132	82	980@1300	195	85	EM, DI, TC,
9CPXL08.8ESK	22	C9	228@1850	137	85	980@1300	197	90	EM, DI, TC,
9CPXL08.8ESK	23	C9	213@1850	130	81	909@1300	181	79	EM, DI, TC,
9CPXL08.8ESK	24	C9	213@1850	129	80	909@1300	186	82	EM, DI, TC,
9CPXL08.8ESK	25	C9	375@2200	188	139	1230@1400	247	117	EM, DI, TC,
9CPXL08.8ESK	26	C9	300@2100	152	108	988@1400	198	93	EM, DI, TC,

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
9CPXL08.8ESK	27	C9	350@1800	199	121	1151@1400	228	107	EM, DI, TC,
9CPXL08.8ESK	28	C9	254@2100	134	95	782@1400	167	79	EM, DI, TC,
9CPXL08.8ESK	29	C9	359@2100	194	137	1248@1400	249	117	EM, DI, TC,
9CPXL08.8ESK	30	C9	217@2000	135	91	782@1200	166	67	EM, DI, TC,
9CPXL08.8ESK	31	C9	223@2000	137	92	800@1200	169	68	EM, DI, TC,
9CPXL08.8ESK	32	C9	228@2000	140	94	820@1200	170	69	EM, DI, TC,
9CPXL08.8ESK	33	C9	233@2000	141	95	850@1200	179	72	EM, DI, TC,
9CPXL08.8ESK	34	C9	237@2000	147	99	859@1200	180	73	EM, DI, TC,
9CPXL08.8ESK	35	C9	243@2000	148	100	878@1200	184	74	EM, DI, TC,
9CPXL08.8ESK	36	C9	248@2000	150	101	898@1200	187	75	EM, DI, TC,
9CPXL08.8ESK	37	C9	253@2000	152	102	917@1200	190	77	EM, DI, TC,
9CPXL08.8ESK	38	C9	273@2000	155	104	994@1200	203	82	EM, DI, TC,
9CPXL08.8ESK	39	C9	286@2000	153	103	885@1400	184	87	EM, DI, TC,
9CPXL08.8ESK	40	C9	275@1800	159	97	904@1400	185	87	EM, DI, TC,
9CPXL08.8ESK	41	C9	300@1800	172	104	988@1400	197	93	EM, DI, TC,
9CPXL08.8ESK	42	C9	228@1850	139	86	980@1300	199	87	EM, DI, TC,
9CPXL08.8ESK	43	C9	228@1850	142	88	980@1300	195	85	EM, DI, TC,
9CPXL08.8ESK	44	C9	213@1850	132	82	909@1300	183	80	EM, DI, TC,
9CPXL08.8ESK	45	C9	213@1850	132	82	909@1300	183	80	EM, DI, TC,
9CPXL08.8ESK	46	C9	228@1850	138	86	980@1300	197	86	EM, DI, TC,
9CPXL08.8ESK	47	C9	350@1800	202	122	1148@1400	229	108	EM, DI, TC,
9CPXL08.8ESK	48	C9	286@2000	153	103	885@1400	184	87	EM, DI, TC,
9CPXL08.8ESK	49	C9	325@2200	195	144	988@1450	231	113	EM, DI, TC,
9CPXL08.8ESK	50	C9	340@2200	201	149	1084@1450	248	121	EM, DI, TC,
9CPXL08.8ESK	51	C9	286@2000	153	103	885@1400	184	87	EM, DI, TC,
9CPXL08.8ESK	52	C9	257@2000	137	92	795@1400	165	78	EM, DI, TC,
9CPXL08.8ESK	53	C9.3	251@1700	157	90	1024@1350	205	93	EM, DI, TC,
9CPXL08.8ESK	54	C9.3	251@1700	157	90	1024@1350	205	93	EM, DI, TC,