

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 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	8CPXL07.2ESL	7.2	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler and Engine Control Module			Loader, Dozer and Industrial Equipment	

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 (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75 ≤ KW < 130	Tier 3	STD	N/A	N/A	4.0	5.0	0.30	20	15	50
130 ≤ KW < 225	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT	--	--	3.9	2.1	0.13	9	2	16

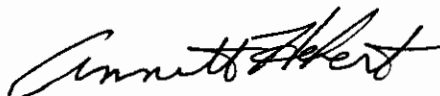
**BE IT FURTHER RESOLVED:** That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

**BE IT FURTHER RESOLVED:** That 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 2

44-R-001-0321

1.Engine Code    2.Engine Model    3.BHP@RPM (SAE Gross)    4.Fuel Rate: mm/stroke @ peak HP (for diesels 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 torqueDevice Per SAE J1930    9.Emission Control

Engine Family	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	EM, DI, TC,
8CPXL07.2ESL	1	C7	233@1800	139	84.4	724@1350	152	69.0	EM, DI, TC,																				
8CPXL07.2ESL	2	C7	197@1800	120	72.9	690@1350	145	66.0	EM, DI, TC,																				
8CPXL07.2ESL	3	C7	197@1800	120	72.8	690@1350	145	66.0	EM, DI, TC,																				
8CPXL07.2ESL	4	C7	174@1800	105	63.3	611@1350	132	59.9	EM, DI, TC,																				
8CPXL07.2ESL	5	C7	225@2200	117	86.7	646@1500	138	69.4	EM, DI, TC,																				
8CPXL07.2ESL	6	C7	216@1800	130	78.9	756@1400	158	74.6	EM, DI, TC,																				
8CPXL07.2ESL	7	C7	219@1800	134	81.2	724@1350	152	69.0	EM, DI, TC,																				
8CPXL07.2ESL	8	C7	233@1800	142	86.0	724@1350	150	68.1	EM, DI, TC,																				
8CPXL07.2ESL	9	C7	225@2200	116	86	758@1400	156	74	EM, DI, TC,																				
8CPXL07.2ESL	10	C7	197@1800	120	73	690@1400	145	68	EM, DI, TC,																				
8CPXL07.2ESL	11	C7	232@1800	142	86	715@1400	151	71	EM, DI, TC,																				
8CPXL07.2ESL	12	C7	219@1800	133	81	715@1400	151	71	EM, DI, TC,																				
8CPXL07.2ESL	13	Cert Engine	300@1800	174	105	1011@1400	204	96	EM, DI, TC,																				
8CPXL07.2ESL	14	C7	250@2200	131	97	842@1400	171	81	EM, DI, TC,																				
8CPXL07.2ESL	15	C7	196@1800	118	72	661@1400	142	67	EM, DI, TC,																				
8CPXL07.2ESL	16	C7	250@1800	148	90	842@1400	171	81	EM, DI, TC,																				
8CPXL07.2ESL	17	C7	250@1800	148	90	842@1400	171	81	EM, DI, TC,																				
8CPXL07.2ESL	18	C7	225@2200	120	89	657@1500	141	71	EM, DI, TC,																				
8CPXL07.2ESL	19	C7	250@1800	148	90	842@1400	171	61	EM, DI, TC,																				
8CPXL07.2ESL	20	C7	205@2100	116	82	578@1500	127	64	EM, DI, TC,																				
8CPXL07.2ESL	21	C7	232@1800	142	86	715@1400	151	71	EM, DI, TC,																				
8CPXL07.2ESL	22	C7	219@1800	133	81	715@1400	151	71	EM, DI, TC,																				
8CPXL07.2ESL	23	C7	232@1800	142	86	715@1400	151	71	EM, DI, TC,																				
8CPXL07.2ESL	24	C7	300@2200	152	113	940@1400	189	89	EM, DI, TC,																				
8CPXL07.2ESL	25	C7	300@2100	157	111	940@1400	189	89	EM, DI, TC,																				
8CPXL07.2ESL	26	C7	188@2000	111	74	673@1000	138	47	EM, DI, TC,																				
8CPXL07.2ESL	27	C7	193@2000	114	77	693@1000	144	48	EM, DI, TC,																				
8CPXL07.2ESL	28	C7	193@2000	112	76	712@1000	146	49	EM, DI, TC,																				

Engine Model Summary Template

U-R-001-0321

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: mm/stroke @ 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
8CPXL07.2ESL	29	C7	202@2000	117	79	732@1000	150	50	EM, DI, TC, ECM, CAC
8CPXL07.2ESL	30	C7	208@2000	120	81	752@1000	155	52	EM, DI, TC,
8CPXL07.2ESL	31	C7	213@2000	122	82	772@1000	160	54	EM, DI, TC,
8CPXL07.2ESL	32	C7	217@2000	125	84	791@1000	164	55	EM, DI, TC,
8CPXL07.2ESL	33	C7	223@2000	127	86	811@1000	167	56	EM, DI, TC,
8CPXL07.2ESL	34	C7	237@2000	133	89	870@1000	180	61	EM, DI, TC,
8CPXL07.2ESL	35	C7	275@2200	143	106	927@1400	188	88	EM, DI, TC,
8CPXL07.2ESL	36	C7	275@1800	163	99	927@1400	188	88	EM, DI, TC,
8CPXL07.2ESL	37	C7	275@2100	147	104	977@1400	197	93	EM, DI, TC,
8CPXL07.2ESL	38	C7	196@1800	117	71	661@1400	141	66	EM, DI, TC,
8CPXL07.2ESL	39	C7	218@1800	133	81	715@1400	151	71	EM, DI, TC,
8CPXL07.2ESL	40	C7	250@2100	136	96	889@1400	181	85	EM, DI, TC,
8CPXL07.2ESL	41	C7	232@1800	144	87	715@1400	151	71	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
8CPXL07.2ESL	46	C7	230@2200	121	89	682@1450	145	81	EM, DI, TC,