



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-45-9;

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)
2002	2CPXL10.5MRF	10.5	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		TYPICAL EQUIPMENT APPLICATION		
Direct Diesel Injection, Turbocharger, and Smoke Puff Limiter		Dozer 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
75≤KW <130	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
130≤KW <225	Tier 1	STD	1.3	9.2	N/A	11.4	0.54	20	15	50
		CERT	0.9	7.6	--	2.7	0.46	13	1	34

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 10th day of December 2001.

R. B. Summerfield, Chief
Mobile Source Operations Division

U-R-001-0185

Manufacturer: CATERPILLAR INC.
 Engine category: Nonroad Over 50 Hp
 EPA Engine Family: 2CPXL10.5MRF
 Mfr Family Name: NA
 Process Code: New Submission

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
Note: Peak HP and Peak Torque fuel rates are nominal values. Due to production engine avgs. these fuel rates may change.								
1 - Cert Engine								
2	3306	255 @ 1800	163	98.5	949 @ 1200	201	81.1	EM, DI, TC, SPL
3	3306	215 @ 2200	120	88.8	753 @ 1400	153	71.8	EM, DI, TC, SPL
4	3306	200 @ 2200	107	79.4	658 @ 1400	127	59.8	EM, DI, TC, SPL
5	3306	200 @ 2000	112	75.6	652 @ 1400	131	61.5	EM, DI, TC, SPL
6	3306	210 @ 2000	119	79.5	687 @ 1400	143	66.7	EM, DI, TC, SPL
7	3306	190 @ 2000	107	72.0	619 @ 1400	123	58.1	EM, DI, TC, SPL
8	3306	200 @ 1800	122	73.8	732 @ 1200	149	60.2	EM, DI, TC, SPL
9	3306	200 @ 1800	122	73.8	710 @ 1200	145	58.7	EM, DI, TC, SPL
10	3306	175 @ 1800	108	65.6	637 @ 1200	132	53.4	EM, DI, TC, SPL
11	3306	150 @ 1800	90	54.2	541 @ 1200	99	40.1	EM, DI, TC, SPL
12	3306	154 @ 1900	93	59.1	536 @ 1200	109	43.9	EM, DI, TC, SPL
13	3306	151 @ 1900	91	57.9	514 @ 1200	104	42.1	EM, DI, TC, SPL
14	3306	204 @ 1900	122	78.1	705 @ 1200	149	60.3	EM, DI, TC, SPL
15	3306	171 @ 1900	104	66.5	600 @ 1200	127	51.3	EM, DI, TC, SPL
16	3306	186 @ 1900	112	71.7	623 @ 1200	128	51.5	EM, DI, TC, SPL
17	3306	211 @ 1900	126	80.6	712 @ 1200	151	61.0	EM, DI, TC, SPL
18	3306	201 @ 1900	121	77.1	701 @ 1200	149	60.0	EM, DI, TC, SPL
19	3306	209 @ 1900	128	81.8	723 @ 1200	154	62.2	EM, DI, TC, SPL
20	3306	179 @ 1900	112	71.2	642 @ 1400	134	63.1	EM, DI, TC, SPL
21	3306	164 @ 1900	99	63.0	577 @ 1200	123	49.6	EM, DI, TC, SPL
22	3306	225 @ 2000	132	88.5	752 @ 1400	154	72.6	EM, DI, TC, SPL
23	3306	176 @ 1900	106	67.5	601 @ 1200	123	49.7	EM, DI, TC, SPL
24	3306	164 @ 1900	98	62.8	576 @ 1200	132	53.3	EM, DI, TC, SPL
25	3306	179 @ 1900	108	68.7	611 @ 1200	125	50.5	EM, DI, TC, SPL
26	3306	199 @ 1900	122	77.8	711 @ 1400	146	68.5	EM, DI, TC, SPL
27	3306	189 @ 1900	115	73.5	676 @ 1400	139	65.5	EM, DI, TC, SPL
28	3306	179 @ 1900	110	70.4	640 @ 1400	130	61.3	EM, DI, TC, SPL
29	3306	179 @ 1800	114	68.9	644 @ 1400	134	62.9	EM, DI, TC, SPL
30	3306	179 @ 1900	110	70.4	640 @ 1400	130	61.3	EM, DI, TC, SPL
31	3306	189 @ 1800	118	71.7	679 @ 1400	141	66.3	EM, DI, TC, SPL
31	3306	189 @ 1900	115	73.5	676 @ 1400	139	65.5	EM, DI, TC, SPL