



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	2CPXL06.6MRB	6.6	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler and Smoke Puff Limiter			Loader, Tractor 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):

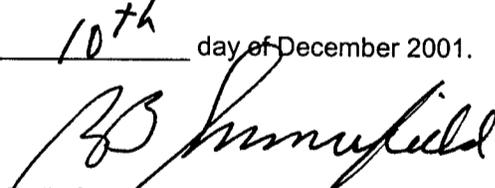
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130≤KW <225	Tier 1	STD	1.3	9.2	N/A	11.4	0.54	20	15	50
75≤KW <130	Tier 1	STD	N/A	9.2	N/A	N/A	N/A	20	15	50
		CERT	0.3	8.4	--	2.0	0.34	14	4	34

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-001-0179

Manufacturer: CATERPILLAR INC.
 Engine category: Nonroad Over 50 Hp
 EPA Engine Family: 2CPXL06.6MRB
 Mfr Family Name: N/A
 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 product- ion engine avgs. these fuel rates may change.								
1	3116	220 @ 2600	100	87.4	586 @ 1650	115	63.8	EM, DI, TC, SPL,
3	3116	200 @ 2400	94	75.9	575 @ 1450	115	56.2	EM, DI, TC, SPL,
4	3116	190 @ 2400	89	72.0	551 @ 1400	111	52.4	EM, DI, TC, SPL,
5	3116	200 @ 2300	96	74.6	573 @ 1450	115	56.1	EM, DI, TC, SPL,
6	3116	205 @ 2200	104	76.5	604 @ 1450	121	59.1	EM, DI, TC, SPL,
7	3116	195 @ 2200	95	70.4	592 @ 1450	117	57.1	EM, DI, TC, SPL,
8	3116	185 @ 2200	92	68.0	544 @ 1450	108	52.6	EM, DI, TC, SPL,
9	3116	175 @ 2200	87	64.2	515 @ 1400	103	48.3	EM, DI, TC, SPL,
10	3116	185 @ 2100	96	67.5	552 @ 1450	110	53.6	EM, DI, TC, SPL,
11	3116	180 @ 2000	96	64.7	545 @ 1450	108	52.9	EM, DI, TC, SPL,
12	3116	190 @ 2600	85	74.2	490 @ 1650	96	53.2	EM, DI, TC, SPL,
13	3116	180 @ 2500	79	66.5	460 @ 1650	89	49.2	EM, DI, TC, SPL,
14	3116	200 @ 2400	97	78.4	550 @ 1450	111	54.1	EM, DI, TC, SPL,
15	3116	175 @ 2400	82	66.4	482 @ 1450	97	47.4	EM, DI, TC, SPL,
16	3116	165 @ 2400	79	64.0	453 @ 1450	91	44.6	EM, DI, TC, SPL,
17	3116	150 @ 2400	73	58.6	420 @ 1400	85	40.1	EM, DI, TC, SPL,
18	3116	190 @ 2200	96	71.4	555 @ 1450	112	54.6	EM, DI, TC, SPL,
19	3116	160 @ 2200	80	59.5	458 @ 1450	92	45.1	EM, DI, TC, SPL,
20	3116	150 @ 2200	76	56.1	423 @ 1450	86	41.8	EM, DI, TC, SPL,
21	3116	140 @ 2200	71	52.5	405 @ 1450	79	38.6	EM, DI, TC, SPL,
22	3116	150 @ 2100	79	55.7	446 @ 1450	90	43.9	EM, DI, TC, SPL,
23	3116	145 @ 2000	80	53.6	441 @ 1450	89	43.4	EM, DI, TC, SPL,
24	3116	150 @ 1950	84	55.4	467 @ 1450	94	45.9	EM, DI, TC, SPL,
25	3116	192 @ 1800	109	66.0	607 @ 1450	121	59.1	EM, DI, TC, SPL,
26	3116	180 @ 1800	103	62.3	606 @ 1450	121	59.1	EM, DI, TC, SPL,
27	3116	160 @ 1800	92	55.8	509 @ 1450	103	50.0	EM, DI, TC, SPL,
28	3116	130 @ 1800	77	46.8	422 @ 1450	87	42.2	EM, DI, TC, SPL,
29	3116	210 @ 2300	98	75.8	569 @ 1400	112	52.8	EM, DI, TC, SPL,
30	3116	187 @ 2300	88	68.4	561 @ 1500	113	56.9	EM, DI, TC, SPL,
31	3116	180 @ 2200	89	66.1	525 @ 1400	106	49.7	EM, DI, TC, SPL,
32	3116	177 @ 2000	91	61.2	604 @ 1400	130	61.2	EM, DI, TC, SPL,