State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-139

Relating to Certification of New Heavy-Duty Engines and Vehicles

CATERPILLAR, INC.

Pursuant to the authority vested in the Air Resources Board at Sections 43100, 43101, and 43102 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned at Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9; and

Pursuant to the December 15, 1998 Settlement Agreement between the Air Resources Board and Caterpillar, Inc. and any modifications to the Settlement Agreement;

IT IS ORDERED AND RESOLVED: That the following engine and emission control system produced by the manufacturer are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Model Year: 2001

Fuel Type: Diesel

Engine Family	•	lacement <u>Cubic Inches</u>	Exhaust Emission Control Systems and Special Features
1CPXH0629ERK	10.3	629	Turbocharger Charge Air Cooler Electronic Control Module Direct Diesel Injection

Engine models and codes are listed on attachments.

BE IT ORDERED AND RESOLVED: That the following are the certification exhaust emission standards (Title 13, California Code of Regulations, Section 1956.8) and certification exhaust emission values for this engine family in grams per brake horsepower-hour under the Federal Test Procedure ("FTP"):

	Total	Carbon	Nitrogen	Particulate			
	<u>Hydrocarbons</u>	<u>Monoxide</u>	Oxides	<u>Matter</u>			
Standard	1.3	15.5	4.0	0.10			
Certification	0.2	1.1	3.7	0.08			

BE IT FURTHER RESOLVED: That pursuant to the Settlement Agreement and any modifications thereof, the aforementioned engine family is also subject to the emission standards, including a "Not-to-Exceed" nitrogen oxides emission standard of 7.0 grams per brake horsepower-hour, under the EURO III tests in the Settlement Agreement. The following are the certification exhaust emission standards and certification exhaust emission values for this engine family in grams per brake horsepower-hour under the EURO III tests:

	Total	Carbon	Nitrogen	Particulate			
	<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>	<u>Matter</u>			
Standard	1.3	15.5	6.0	0.10			
EURO III	0.1	0.5	4.5	0.04			

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Sections 2035 et seq.).

BE IT FURTHER RESOLVED: That the aforementioned engine family has been conditionally certified subject to the following conditions:

- 1. The Settlement Agreement is in effect.
- 2. Caterpillar, Inc. is in compliance with all applicable certification requirements of the Settlement Agreement.

Engines certified under this Executive Order must conform to all applicable California emission regulations and to all applicable terms and conditions of the Settlement Agreement.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this _____day of December 2000.

R. B. Summerfield, Chief Mobile Source Operations Division

Engine Model Summary Form

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Manufacturer:CATERPILLAR INC.Engine category:On-highway HDDEEPA Engine Famiy.ICPXH0629ERKMfr Family Name:NA

Process Code: New Submission

A-13-139

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8.Fuel Rate: 9.Emission Control (lbs/hr)@peak torque Device Per SAE J1930		EM. DI. TC. ECM.	EM, DICHC, ECM.	EM, DICAC, ECM,	EM, DICHC, ECM,	EM, DICAC, ECM,	EM, DICHC, ECM.	EM. DICHC. ECM.	EM, DICAC, ECM.	EM. DICAC ECM.	EM, DI, TC, ECM.	EM. DICAC. ECM.	EM. DICAC. ECM.	EM, DICAC, ECM,	CAC	DULTOCALEON	
8.Fuel Rate: (lbs/hr)@peak torque	mav change.	96.6	66	66	96	100	91	91	92	83	84	17	91	91			
7.Fuel Rate: mm/stroke@peak torque	these fuel rates	239	245	245	238	248	225	225	228	206	208	191	225	225			
6.Torque @ RPM (SEA Gross)	ion engine avos.	1350 @ 1200	1350 @ 1200	1350 @ 1200	1350 @ 1200	1350 @ 1200	1250 @ 1200	1250 @ 1200	1250 @ 1200	1150 @ 1200	1150 @ 1200	1050 @ 1200	1250 @ 1200	1250 @ 1200			
5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	Due to product- ion engine avgs.	116.1	126	126	120	117	111	114	113	104	104	101	114	111			
4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	nominal values.	192	208	208	198	193	183	188	187	172	172	167	188	183			
3.BHP@RPM (SAE Gross)	fuel rates are	370 @ 1800	370 @ 1800	370 @ 1800	350 @ 1800	365 @ 1800	350 @ 1800	335 @ 1800	335 @ 1800	305 @ 1800	320 @ 1800	315 @ 1800	335 @ 1800	350 @ 1800			
2.Engine Model	and Peak Torque	C - 10	C - 10	C - 10	C - 10	C - 10	C - 10	C - 10	C - 10	C - 10	C - 10	C - 10	C - 10	C - 10			
1.Engine Code	Note: Peak HP	Cert Eng		2	ĉ	4	5	9	7	8	ວ	10		12			