

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-133

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 2000 model-year Caterpillar, Inc. diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle-weight-rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

<u>Engine Family</u>	<u>Displacement</u>		<u>Exhaust Emission Control Systems and Special Features</u>
	<u>Liters</u>	<u>Cubic Inches</u>	
YCPXH0629ERK	10.3	629	Turbocharger Charge Air Cooler Electronic Control Module

The engine models and codes are listed on attachments.

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

	<u>Total Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulate Matter</u>
"FTP"	1.3	15.5	4.0	0.10

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

	<u>Total Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulate Matter</u>
"EURO III"	1.3	15.5	6.0	0.10

BE IT FURTHER RESOLVED: That the following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

	<u>Total Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulate Matter</u>
"FTP"	0.2	1.1	3.7	0.08
"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 16<sup>th</sup> day of December 1999.

*Raphael Summerfield*  
 R. B. Summerfield, Chief  
 Mobile Source Operations Division

# Engine Model Summary Form

EO: A-13-133

Manufacturer: CATERPILLAR INC.  
 Engine category: Nonroad CI  
 EPA Engine Family: YCPXH0629ERK  
 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 product-	ion engine avgs.	these fuel rates	may change.	TC, CAC, ECM
Cert Eng	C-10	370 @ 1800	192	116.1	1350 @ 1200	239	96.6	EM, DI, TC, ECM,
1	C-10	370 @ 1800	208	126	1350 @ 1200	245	99	EM, D <del>CAC</del> , ECM,
2	C-10	370 @ 1800	208	126	1350 @ 1200	245	99	EM, D <del>CAC</del> , ECM,
3	C-10	350 @ 1800	198	120	1350 @ 1200	238	96	EM, D <del>CAC</del> , ECM,
4	C-10	365 @ 1800	193	117	1350 @ 1200	248	100	EM, D <del>CAC</del> , ECM,
5	C-10	350 @ 1800	183	111	1250 @ 1200	225	91	EM, D <del>CAC</del> , ECM,
6	C-10	335 @ 1800	188	114	1250 @ 1200	225	91	EM, D <del>CAC</del> , ECM,
7	C-10	335 @ 1800	187	113	1250 @ 1200	228	92	EM, D <del>CAC</del> , ECM,
8	C-10	305 @ 1800	172	104	1150 @ 1200	206	83	EM, D <del>CAC</del> , ECM,
9	C-10	320 @ 1800	172	104	1150 @ 1200	208	84	EM, DI, TC, ECM,
10	C-10	315 @ 1800	167	101	1050 @ 1200	191	77	EM, D <del>CAC</del> , ECM, CAC