

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-134

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>	
YCPXH0729ERK	12.0	729	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	1.0	3.8	0.08
"EURO III"	0.1	0.5	4.8	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.).

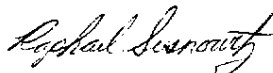
BE IT FURTHER RESOLVED: That the aforementioned engine family has been conditionally certified subject to the following conditions:

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.

  
R. B. Summerfield, Chief  
Mobile Source Operations Division

# Engine Model Summary Form

ED: A-13-134

Manufacturer: **CATERPILLAR INC.**  
 Engine category: **On-highway HDDE**  
 EPA Engine Family: **YCPXH0729ERK**  
 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
Cert Eng '96	C - 12	455 @ 1800	229	138.6	1650 @ 1200	290	117.2	EM, DI, TC, ECM, <b>CAC</b>
1	C - 12	430 @ 1800	231	140	1650 @ 1200	300	121	EM, DI, TC, ECM, <b>CAC</b>
2	C - 12	455 @ 1800	239	145	1550 @ 1200	290	117	EM, DI, TC, ECM, <b>CAC</b>
3	C - 12	445 @ 1800	238	144	1650 @ 1200	302	122	EM, DI, TC, ECM, <b>CAC</b>
4	C - 12	380 @ 1800	211	128	1450 @ 1200	258	104	EM, DI, TC, ECM, <b>CAC</b>
5	C - 12	430 @ 1800	231	140	1650 @ 1200	300	121	EM, DI, TC, ECM, <b>CAC</b>
6	C - 12	410 @ 1800	223	135	1550 @ 1200	273	110	EM, DI, TC, ECM, <b>CAC</b>
7	C - 12	410 @ 1800	228	138	1450 @ 1200	260	105	EM, DI, TC, ECM, <b>CAC</b>
8	C - 12	410 @ 1800	223	135	1550 @ 1200	273	110	EM, DI, TC, ECM, <b>CAC</b>
9	C - 12	410 @ 1800	223	135	1550 @ 1200	273	110	EM, DI, TC, ECM, <b>CAC</b>
10	C - 12	410 @ 1800	228	138	1450 @ 1200	260	105	EM, DI, TC, ECM, <b>CAC</b>
11	C - 12	425 @ 1800	225	136	1550 @ 1200	277	112	EM, DI, TC, ECM, <b>CAC</b>
12	C - 12	425 @ 1800	226	137	1450 @ 1200	265	107	EM, DI, TC, ECM, <b>CAC</b>
13	C - 12	425 @ 1800	225	136	1550 @ 1200	277	112	EM, DI, TC, ECM, <b>CAC</b>
14	C - 12	425 @ 1800	226	137	1450 @ 1200	265	107	EM, DI, TC, ECM, <b>CAC</b>
15	C - 12	395 @ 1800	226	137	1450 @ 1200	265	107	EM, DI, TC, ECM, <b>CAC</b>
16	C - 12	405 @ 1800	221	134	1450 @ 1200	260	105	EM, DI, TC, ECM, <b>CAC</b>
17	C - 12	410 @ 1800	215	130	1550 @ 1200	285	115	EM, DI, TC, ECM, <b>CAC</b>
18	C - 12	410 @ 1800	220	133	1450 @ 1200	263	106	EM, DI, TC, ECM, <b>CAC</b>
19	C - 12	380 @ 1800	211	128	1450 @ 1200	258	104	EM, DI, TC, ECM, <b>CAC</b>
20	C - 12	395 @ 1800	210	127	1450 @ 1200	260	105	EM, DI, TC, ECM, <b>CAC</b>
21	C - 12	355 @ 1800	201	122	1350 @ 1200	243	98	EM, DI, TC, ECM, <b>CAC</b>
22	C - 12	370 @ 1800	195	118	1350 @ 1200	243	98	EM, DI, TC, ECM, <b>CAC</b>
23	C - 12	425 @ 1800	225	136	1550 @ 1200	277	112	EM, DI, TC, ECM, <b>CAC</b>
24	C - 12	355 @ 1800	201	122	1350 @ 1200	243	98	EM, DI, TC, ECM, <b>CAC</b>
25	C - 12	380 @ 1800	211	128	1450 @ 1200	258	104	EM, DI, TC, ECM, <b>CAC</b>
26	C - 12	355 @ 1800	201	122	1350 @ 1200	243	98	EM, DI, TC, ECM, <b>CAC</b>
27	C - 12	370 @ 1800	195	118	1350 @ 1200	243	98	EM, DI, TC, ECM, <b>CAC</b>
28	C - 12	370 @ 1800	195	118	1350 @ 1200	243	98	EM, DI, TC, ECM, <b>CAC</b>

TC, CAC, ECM