State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-135

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

Engine Family	Displacement Liters	Displacement Cubic Inches	Exhaust Emission Control Systems and Special Features
YCPXH0893ERK	14.6	893	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):

	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
"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:

	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
"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:

	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulate Matter
"FTP"	0.2	1.4	3.7	0.08
"EURO III"	0.1	0.4	5.3	0.03

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 16th day of December 1999.

Richard Summerfield

for R. B. Summerfield, Chief
Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: **CATERPILLAR INC.**

Engine category: **On-highway HDDE**

EPA Engine Family: YCPXH0893ERK

Mfr Family Name: NA

Process Code: New Submission

EC: A-13-135

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 '97	3406	550 @ 1800	294	177.9	1850 @ 1200	339	136.8	EM, DI, TC, ECM,
1	3406	550 @ 1800	319	193.2	1850 @ 1200	334	134.8	EM, DI~~C~~AC, ECM,
2	3406	550 @ 1800	319	193.2	1850 @ 1200	334	134.8	EM, DI~~C~~AC, ECM,
3	3406	515 @ 1800	304	183.9	1850 @ 1200	339	136.9	EM, DI~~C~~AC, ECM,
4	3406	515 @ 1800	304	183.9	1750 @ 1200	320	129.2	EM, DI~~C~~AC, ECM,
5	3406	515 @ 1800	304	183.9	1850 @ 1200	339	136.9	EM, DI~~C~~AC, ECM,
6	3406	515 @ 1800	304	183.9	1850 @ 1200	339	136.9	EM, DI~~C~~AC, ECM,
7	3406	515 @ 1800	304	183.9	1750 @ 1200	320	129.2	EM, DI~~C~~AC, ECM,
8	3406	515 @ 1800	304	183.9	1750 @ 1200	320	129.2	EM, DI~~C~~AC, ECM,
9	3406	515 @ 1800	304	183.9	1650 @ 1200	301	121.6	EM, DI~~C~~AC, ECM,
10	3406	515 @ 1800	301	182.1	1850 @ 1200	336	135.5	EM, DI, TC, ECM,
11	3406	515 @ 1800	301	182.1	1750 @ 1200	317	128.0	EM, DI~~C~~AC, ECM,
12	3406	515 @ 1800	301	182.1	1850 @ 1200	336	135.5	EM, DI~~C~~AC, ECM,
13	3406	515 @ 1800	301	182.1	1850 @ 1200	336	135.5	EM, DI~~C~~AC, ECM,
14	3406	515 @ 1800	301	182.1	1750 @ 1200	317	128.0	EM, DI~~C~~AC, ECM,
15	3406	515 @ 1800	301	182.1	1750 @ 1200	317	128.0	EM, DI~~C~~AC, ECM,
16	3406	515 @ 1800	301	182.1	1650 @ 1200	298	120.4	EM, DI~~C~~AC, ECM,
17	3406	500 @ 1800	294	178.2	1850 @ 1200	339	136.9	EM, DI~~C~~AC, ECM,
18	3406	490 @ 1800	290	175.5	1650 @ 1200	301	121.7	EM, DI~~C~~AC, ECM,
19	3406	490 @ 1800	290	175.5	1650 @ 1200	301	121.7	EM, DI~~C~~AC, ECM,
20	3406	490 @ 1800	290	175.5	1750 @ 1200	320	129.1	EM, DI~~C~~AC, ECM,
21	3406	490 @ 1800	290	175.5	1650 @ 1200	301	121.7	EM, DI~~C~~AC, ECM,
22	3406	490 @ 1800	287	173.8	1650 @ 1200	299	120.5	EM, DI~~C~~AC, ECM,
23	3406	490 @ 1800	287	173.8	1650 @ 1200	299	120.5	EM, DI~~C~~AC, ECM,
24	3406	490 @ 1800	287	173.8	1750 @ 1200	317	127.8	EM, DI~~C~~AC, ECM,
25	3406	490 @ 1800	287	173.8	1650 @ 1200	299	120.5	EM, DI~~C~~AC, ECM,
26	3406	475 @ 1800	282	170.9	1750 @ 1200	320	129.1	EM, DI~~C~~AC, ECM,
27	3406	475 @ 1800	282	170.9	1650 @ 1200	301	121.7	EM, DI~~C~~AC, ECM,
28	3406	475 @ 1800	279	169.2	1750 @ 1200	317	127.8	EM, DI~~C~~AC, ECM,
29	3406	475 @ 1800	279	169.2	1650 @ 1200	299	120.5	EM, DI~~C~~AC, ECM,
30	3406	470 @ 1800	279	169.1	1750 @ 1200	320	129.2	EM, DI~~C~~AC, ECM,
31	3406	470 @ 1800	279	169.1	1550 @ 1200	284	114.7	EM, DI~~C~~AC, ECM,

32	3406	470 @ 1800	279	[illegible]	1550 @ 1200	284	114.7	EM, DI, TC, ECM,
33	3406	470 @ 1800	279	[illegible]	1650 @ 1200	301	121.6	EM, DICAC, ECM,
34	3406	470 @ 1800	277	167.5	1750 @ 1200	317	127.9	EM, DICAC, ECM,
35	3406	470 @ 1800	277	167.5	1550 @ 1200	281	113.5	EM, DICAC, ECM,
36	3406	470 @ 1800	277	167.5	1650 @ 1200	298	120.4	EM, DICAC, ECM,
37	3406	470 @ 1800	277	167.5	1550 @ 1200	281	113.5	EM, DICAC, ECM,
38	3406	455 @ 1800	272	164.4	1650 @ 1200	301	121.6	EM, DICAC, ECM,
39	3406	450 @ 1800	270	163.7	1650 @ 1200	301	121.7	EM, DICAC, ECM,
40	3406	450 @ 1800	270	163.7	1550 @ 1200	283	114.4	EM, DICAC, ECM,
41	3406	455 @ 1800	269	162.8	1650 @ 1200	298	120.4	EM, DICAC, ECM,
42	3406	450 @ 1800	266	162.0	1650 @ 1200	299	120.5	EM, DICAC, ECM,
43	3406	450 @ 1800	266	162.0	1550 @ 1200	280	113.2	EM, DICAC, ECM,
44	3406	435 @ 1800	261	158.3	1650 @ 1200	301	121.7	EM, DICAC, ECM,
45	3406	435 @ 1800	261	158.3	1550 @ 1200	283	114.4	EM, DICAC, ECM,
46	3406	435 @ 1800	259	156.8	1650 @ 1200	299	120.5	EM, DICAC, ECM,
47	3406	435 @ 1800	259	156.8	1550 @ 1200	280	113.2	EM, DICAC, ECM,
48	3406	450 @ 1800	266	162.0	1550 @ 1200	280	113.2	EM, DI, TC, ECM,
49	3406	470 @ 1800	269	162.1	1650 @ 1200	296	120.7	EM, DICAC, ECM, CAC

TC, CAC, ECM

Engine Family: YCPXH0893ERK; EO: A-13-135