

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-130

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 1999 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>	
XCPXH0442HSK	7.1	442	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 5.0 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	4.0	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"	0.6	1.2	3.8	0.09
"EURO III"	0.1	0.6	3.8	0.05

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.).

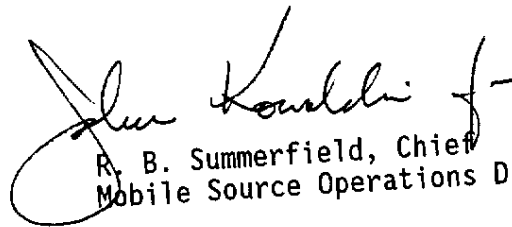
BE IT FURTHER RESOLVED: That the aforementioned engine family has been conditionally certified subject to the following conditions:

1. The Settlement Agreement is in effect.
2. The Settlement Agreement has not become null and void under Settlement Agreement Paragraph 165.
3. 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 26th day of May 1999.


R. B. Summerfield, Chief
Mobile Source Operations Division

LARGE ENGINE MODEL SUMMARY

EO: A-13-130

Process Code: **New Submission**

Manufacturer: **Caterpillar Inc.**

NA

EPA Engine Family: **XCPXH0442HSK**

Manufacturer Family Name:

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm ³ /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 ³ /stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
Cert Eng '98	3126	330 @ 2400	149	120.2	860 @ 1440	168	81.5	EM, DI, TC, ECM,
1	3126	330 @ 2400	148	119.2	860 @ 1440	166	80.2	EM, DI@AC, ECM,
2	3126	300 @ 2200	145	107.4	860 @ 1440	169	80.0	EM, DI@AC, ECM,
3	3126	300 @ 2200	144	106.2	800 @ 1440	152	73.6	EM, DI@AC, ECM,
4	3126	275 @ 2200	132	97.4	860 @ 1440	164	79.6	EM, DI@AC, ECM,
5	3126	275 @ 2200	131	97.2	800 @ 1440	153	74.3	EM, DI@AC, ECM,
6	3126	250 @ 2200	124	91.5	800 @ 1440	157	76.0	EM, DI@AC, ECM,
7	3126	250 @ 2200	123.3	91.3	660 @ 1440	129	62.7	EM, DI@AC, ECM,
8	3126	230 @ 2200	115	85.1	660 @ 1440	130	62.8	EM, DI@AC, ECM,
9	3126	210 @ 2200	101	75.1	605 @ 1400	117	56.7	EM, DI@AC, ECM,
10	3126	210 @ 2200	102	75.5	520 @ 1440	102	49.3	EM, DI@AC, ECM,
11	3126	210 @ 2400	106	78.7	520 @ 1440	100	48.5	EM, DI@AC, ECM,
12	3126	190 @ 2300	98	75.8	520 @ 1440	98	47.5	EM, DI@AC, ECM,
13	3126	175 @ 2200	89	62.9	420 @ 1440	80	38.7	EM, DI@AC, ECM, CAC

(TC, AC, ECM)