

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-125

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>	
XCPXH0442HRK	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 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"	0.6	1.2	3.8	0.08
"EURO III"	0.04	1.0	4.8	0.07

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.
4. Caterpillar, Inc. generates and submits emissions data that demonstrate compliance with the terms of the Settlement Agreement for supplemental data points pursuant to paragraph 1.1 of Appendix C of the Settlement Agreement. The emissions data must be submitted by February 15, 1999, unless ARB extends this date for good cause.

Engines manufactured after July 31, 1999 are not covered under this Executive Order.

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 22nd day of December 1998.



B. B. Summerfield, Chief
Mobile Source Operations Division

LARGE ENGINE MODEL SUMMARY

9/2/98

EO: A-13-125

Manufacturer: Caterpillar Inc. Process Code: New Submission

EPA Engine Family: XCPXH0442HRK Manufacturer Family Name: NA

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 1 - Cert. Engine	and Peak Torque	fuel rates are	nominal values.	Due to product-	ion engine avgs.	these fuel rates	may change.	EM, DI, TC, ECM,
2	3126	330 @ 2400	152	123.1	860 @ 1440	158	76.8	EM, DI, TC, ECM,
3	3126	300 @ 2200	141	104.7	860 @ 1440	160	77.6	EM, DI, TC, ECM,
4	3126	300 @ 2200	141	104.7	800 @ 1440	148	71.8	EM, DI, TC, ECM,
5	3126	275 @ 2200	129	95.1	860 @ 1440	160	77.6	EM, DI, TC, ECM,
6	3126	275 @ 2200	126	95.1	800 @ 1440	148	71.8	EM, DI, TC, ECM,
7	3126	250 @ 2200	116	86.1	800 @ 1440	148	71.8	EM, DI, TC, ECM,
8	3126	250 @ 2200	116	86.1	660 @ 1440	122	59.2	EM, DI, TC, ECM,
9	3126	230 @ 2200	108	79.9	660 @ 1440	123	59.6	EM, DI, TC, ECM,
10	3126	210 @ 2200	99	72.9	605 @ 1440	113	54.9	EM, DI, TC, ECM,
11	3126	190 @ 2200	88	65.2	520 @ 1440	99	48.0	EM, DI, TC, ECM,
12	3126	175 @ 2200	81	60.1	520 @ 1440	97	46.9	EM, DI, TC, ECM,
					440 @ 1440	79	38.3	EM, DI, TC, ECM,