

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-225

Relating to Certification of New Heavy-Duty Engines and Vehicles

CUMMINS ENGINE COMPANY, 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 Cummins Engine Company, Inc. and any modifications to the Settlement Agreement;

IT IS ORDERED AND RESOLVED: That the following 1999 model-year Cummins Engine Company, 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>	
XCEXH0505CAF (413M)	8.3	505	Turbocharger Charge Air Cooler Electronic Control Module Oxidation Catalytic Converter

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	0.05

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	0.05

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"	0.1	0.5	3.9	0.05
"EURO III"	0.02	0.04	4.0	

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 listed engine models are certified for use in urban buses.

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. Cummins Engine Co., Inc. is in compliance with all applicable certification requirements of the Settlement Agreement.
4. Cummins Engine Co., 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 January 31, 1999, unless ARB extends this date for good cause.
5. Cummins Engine Co., Inc. generates and submits EURO III emissions data including particulate matter results that demonstrate compliance with the terms of the Settlement Agreement. The emissions data must be submitted by January 31, 1999, unless ARB extends this date for good cause.

Engines produced on or after July 31, 1999 are not covered by this Executive Order.

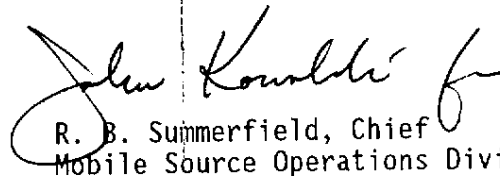
Engines certified under this Executive Order must conform to all applicable California emission regulations and to all applicable terms and conditions of the Settlement Agreement.

CUMMINS ENGINE COMPANY, INC.

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The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 21st day of December 1998.

A handwritten signature in cursive script, appearing to read "R. B. Summerfield", with a large flourish at the end.

R. B. Summerfield, Chief
Mobile Source Operations Division

LARGE ENGINE MODEL SUMMARY

9/22/98

Manufacturer: **Cummins Engine Company, Inc.** Process Code: **New Submission**

EPA Engine Family: **XCEXH0505CAF** Manufacturer Family Name: **413M**

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

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
CPL2236	ISC 280	289@2000	146	98.3	900@1300	157	69.0	ECM, TC-LA, DC
FR90254								
CPL2237	ISC 250	265@2000	139	93.7	730@1300	143	62.7	ECM, TC-LA, DC
FR90256								

EO A-21-225