

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-234

Relating to Certification of New Medium-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;

IT IS ORDERED AND RESOLVED: That the following 1999 model-year Cummins Engine Company, Inc. diesel engines are certified for use in vehicles with a manufacturer's gross vehicle-weight-rating (GVWR) of 8,501 to 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>	
XCEXA0359BAN (403N)	5.9	359	Turbocharger Charge Air Cooler Powertrain Control Module

The engine models and codes are listed on attachments.

The following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour (Title 13, California Code of Regulations, Section 1956.8):

<u>Non-Methane Hydrocarbons and Nitrogen Oxides</u>	<u>Carbon Monoxide</u>	<u>Particulate Matter</u>
3.9	14.4	0.10

The following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

<u>Non-Methane Hydrocarbons and Nitrogen Oxides</u>	<u>Carbon Monoxide</u>	<u>Particulate Matter</u>
3.8	0.9	0.10

BE IT FURTHER RESOLVED: That the listed engine models are certified to the optional standards and test procedures applicable to incomplete and diesel medium-duty vehicles of 8,501 to 14,000 pounds GVWR pursuant to Title 13, California Code of Regulations, Section 1956.8(g).

BE IT FURTHER RESOLVED: That the listed engine models and vehicle models shall be subject to the in-use compliance provisions applicable to 1995 and subsequent model-year medium-duty vehicles set forth in Title 13, California Code of Regulations, Section 2139(c).

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "California Motor Vehicle Emission-Control and Smog-Index Label Specifications" for the aforementioned model-year (Title 13, California Code of Regulations, Section 1965).

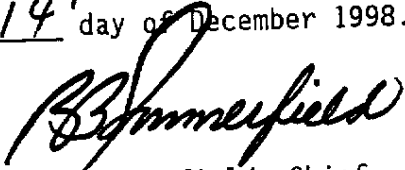
BE IT FURTHER RESOLVED: That the listed engine models comply with the on-board diagnostic system requirements for the aforementioned model-year pursuant to Title 13, California Code of Regulations, Section 1968.1 ("Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger-Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines").

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.).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

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

Executed at El Monte, California this 14th day of December 1998.


R. B. Summerfield, Chief
Mobile Source Operations Division

LARGE ENGINE MODEL SUMMARY

11/30/88

Process Code: **New Submission**

Manufacturer: **Cummins Engine Company, Inc.**

EPA Engine Family: **XCEXA0359BAN**

Manufacturer Family Name: **403N**

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

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
CPL2618	ISB 235	235@2700	92	83.9	460@1600	86	46.2	PCM, TC, CAC
FR90485								
CPL2619	ISB 215	215@2700	87	79.3	420@1600	81	43.6	PCM, TC, CAC
FR90486								

EO 1-21-234