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## State of California AIR RESOURCES BOARD

## EXECUTIVE ORDER A-21-192

Relating to Certification of New Heavy-Duty Motor Vehicle Engines
CUMMINS ENGINE COMPANY, INC.

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following Cummins Engine Company, Inc. 1997 model diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Compressed Natural Gas or Liquid Natural Gas (CNG or LNG)

Engine Family	Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
VCE359D1CAAB (493E)	5.9	359	Charge Air Cooler Turbocharger Powertrain Control Module Heated Oxygen Sensor Oxidation Catalytic Converter

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:

Non-Methane	Carbon	Nitrogen	<u>Particulates</u>	
<u>Hydrocarbons</u>	<u>Monoxide</u>	<u>Oxides</u>		
1.2	15.5	2.5	0.10	

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

Non-Methane	Carbon	Nitrogen	<u>Particul</u> ates
Hydrocarbons	<u>Monoxide</u>	Oxides	
0.2	2.1	1.0	0.02

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, Section 2035 et seq.).

CUMMINS ENGINE COMPANY, INC.

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BE IT FURTHER RESOLVED: That the listed engine models are certified to the optional lower-emission NOx standards pursuant to the California Code of Regulations, Title 13, Section 1956.8(a)(1) and the incorporated "California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles", adopted April 8, 1985, as last amended June 29, 1995.

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

12//

day of Feburary 1997.

R. B. Summerfield, Chief Mobile Source Operations Division

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## 1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL-STANDARD ENGINES

Diagram	Luminums Engine	Company, Inc.	Engine Family	493E VCE	59DICAAR	
-		<u>/-7Liters</u>				<del></del>
Maximum Rate	d Power: 195	HP @2800	_RPM	F	ngina Confi	9_Cubic Inche
Ignition: Comp		Соп	pression with Glov	v Plug	where coming	uation: <u>I-6</u>
Fuel Type(s):	edicated_	Flex-Fuel_	Dual-Fuel_	Diese!	Mim	Spark X
<b></b>		CNG X L	NGX LPG	Other (s	nacifu)	M85_
Diesel Cert Fuel	: 13 CCR 2282_		40 CFR 86.1313	-90	40.050.04	
Primary Intended	i Service Class: )	LHD_				
Exhaust ECS (in	clude.MFI, TC, C	AC):	<u>HO2S, PCM, OC</u>	TC CAC		rban Bus_
	T		(use abbreviation	ons per SAE J19	30 SEP91)	
Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ Rared HP mm3 / stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Convener
B5,9-19 <b>5</b> G (2344)	195 @ 2800	(70)	ΝA	3922724 3930507	N/A	Part No. 3927832
B5.9-150G (2343)	150 @ 2500	(57)	N/A	3922724 3930507	N/A	3927832
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