State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-186

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: Diesel

Engine Family	Liters	(Cubic Inches)	Exhaust Emission Control Systems and Special Features
VCE661EJDASA (353D)	10.8	661	Charge Air Cooler Turbocharger Powertrain Control Module

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:

Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
1.3	15.5	5.0	0.10

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

Engine Family	Total Hydrocarbons	Carbon Monoxide	Nitrogen Oxides	Particulates
VCE661EJDASA (353D)	0.2	0.9	4.8	0.06

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.).

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 9th day of January 1997.

Raphael Susnowitz

for R. B. Summerfield, Chief
Mobile Source Operations Division

E.O.# A-21-186

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

Manufacturer Cummins Engine Company, Inc. Engine Family (353D) VCE661EJDASA

Displacement: / 10.8 Liters / 661 Cubic Inches

Maximum Rated Power: 400 HP @ 1800 RPM Engine Configuration: I-6

Ignition: Compression X Compression with Glow Plug___ Spark___

Fuel Type(s): Dedicated X Flex-Fuel___ Dual-Fuel___ Diesel X M100___ M85___

Diesel Cert Fuel: 13 CCR 2282___ 40 CFR 86.1313-90___ 40 CFR 86.1313-94 X

Primary Intended Service Class: LHD___ MHD___ HHD X Urban Bus___

Exhaust ECS (include.MFI, TC, CAC): PCM (TC, CAC)
(use abbreviations per SAE J1930 SEP91)

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm3 / stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
M11-400E (1885) (1973)	400 @ 1800	213 (129)	3084589 3087557	3084473	N/A	N/A

Date Last:

Revisions:

SUBMITTED

DEC 06 1996

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Ignition: Compression X Compression with Glow Plug ____ Spark ____

Fuel Type(s): Dedicated X Flex-Fuel ___ Dual-Fuel ___ Diesel X M100 ___ M85 ___

CNG ___ LNG ___ LPG ___ Other (specify) ____

Diesel Cert Fuel: 13 CCR 2282 ___ 40 CFR 86.1313-90 ___ 40 CFR 86.1313-94 X

Primary Intended Service Class: LHD ___ MHD ___ HHD X Urban Bus ___

Exhaust ECS (include.MFI, TC, CAC): PCM (TC/CAC)
(use abbreviations per SAE J1930 SEP91)

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm3 / stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
M11-370E (1856)	370 @ 1800	194 (118)	3084589 3087557	3084473	N/A	N/A
M11-350E (1856)	350 @ 1800	183 (111)	3084589 3087557	3084473	N/A	N/A
M11-330E (1856)	330 @ 1800	172 (105)	3084589 3087557	3084473	N/A	N/A
M11-335E (1856)	335 @ 1800	176 (107)	3084589 3087557	3084473	N/A	N/A
M11 ESP III (1856)	330 @ 1800	172 (105)	3084589 3087557	3084473	N/A	N/A

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Displacement: / 10.8 Liters / 661 Cubic Inches

Maximum Rated Power: 400 HP @ 1800 RPM Engine Configuration: I-6

Ignition: Compression X Compression with Glow Plug ____ Spark ____

Fuel Type(s): Dedicated X Flex-Fuel ___ Dual-Fuel ___ Diesel X M100 ___ M85 ___

CNG ___ LNG ___ LPG ___ Other (specify) ____

Diesel Cert Fuel: 13 CCR 2282 ___ 40 CFR 86.1313-90 ___ 40 CFR 86.1313-94 X

Primary Intended Service Class: LHD ___ MHD ___ HHD X Urban Bus ___

Exhaust ECS (include.MFI, TC, CAC): PCM (TC, CAC)
(use abbreviations per SAE J1930 SEP91)

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm3 / stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
M11-330E (1855)	330 @ 1800	172 (105)	3084589 3087557	3084473	N/A	N/A
M11-310E (1855)	310 @ 1800	161 (98)	3084589 3087557	3084473	N/A	N/A
M11-280E (1855)	280 @ 1800	146 (89)	3084589 3087557	3084473	N/A	N/A
M11 ESP I (1855)	280 @ 1800	146 (89)	3084589 3087557	3084473	N/A	N/A
M11 ESP II (1857)	310 @ 1800	161 (98)	3084589 3087557	3084473	N/A	N/A
M11-315ESP (1857)	315 @ 1800	166 (101)	3084589 3087557	3084473	N/A	N/A
M11-320E (1855)	320 @ 2000	157 (106)	3084589 3087557	3084473	N/A	N/A

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Revisions:

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