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	<u>Liters ((</u>	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 <u>Hydrocarbons</u>			<u>Particulates</u>	
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	Total	Carbon	Nitrogen	<u>Particulates</u>
<u>Family</u>	<u>Hydrocarbons</u>	<u>Monoxide</u>	Oxides	
VCE661EJDASA (353D)	0.2	0.9	4.8	0.06

BE IT FURTHER RESS (FD: 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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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 _____ day of January 1997.

Rophael Susnowity

Mobile Source Operations Division

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

Manufacturer	Cummins_Engi	ne Compan	ny, Ir		Engine	Family	(<u>353D</u>)	VCE661	EJDAS	A
Displacement:					-		1	661	_Cubi	c Inches
Maximum Rated	Power:	<u>400</u> H	Р@	1800	RPM	-		-		I-6
Ignition: Co	mpression X		Com	pressi	on with G	Glow Pl	ug		S	park
Fuel Type(s):	Dedicated 🗡	Flex-	Fuel	Dua	al-Fuel	_ Die	esel <u>X</u>	M100		м85
Diesel Cert F	uel: 13 CCR	2282		40 CFI	R 86.1313	90		40 CFR	86.133	13-94 <u>X</u>
Primary Inten					MHD		HHD <u>X</u>			Bus
Exhaust ECS (include.MFI,	TC, CAC)	:	(use	PCM abbreviat	(TC, (tions pe	CAC) er SAE	J1930 S	EP91)	
				1	1			FCR		PTOX /

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	A\n

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

Manufacturer	Cummins Engin	e Company,	Inc.	Engine	Family	<u>7 (353D) V</u>	CE661EJDASA	
Displacement:		10.8	Liters	S	<u></u>	/	661 Cubic	Inches
Maximum Rated	Power:	400	HP @	1800	_RPM	Engine C	Configuration	n: <u>I-6</u>
Ignition: Co	mpression <u>X</u>	Compi	ression	with Gla	ow Plug	ſ	Spark_	
Fuel Type(s):	Dedicated X	Flex-Fuel	D	ual-Fuel	1	Diesel <u>X</u>	M100	M85
	CNG LN							
Diesel Cert F	uel: 13 CCR :	2282	40 CFR	86.1313-	-90	40	CFR 86.1313	-94 <u>X</u>
Primary Inten	ded Service C	lass: LHD	<u> </u>	MHD		HHD <u>X</u>	Urban Bu	s
Exhaust ECS (include.MFI, '	IC, CAC): _	PCM ((use	TC (AC) abbrevia	ations	per SAE J	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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1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL-STANDARD ENGINES

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Manufacturer <u>Cummins Engine Company, I</u> Displacement: / 10.8 Li	ters/ 661 Cubic Inches
Hundrum Rated Power: 400 H	P @ 1800 RPM Engine Configuration: <u>1 0</u>
Compress	sion with Glow Plug Spark
Tuel Type(s): Dedicated X Flex-Fuel	Dual-Fuel Diesel <u>X</u> MIOOMOD
CNGLNGLPG	Other (specify)
Diesel Cert Fuel: 13 CCR 2282 4	40 CFR 86.1313-94 X
Primary Intended Service Class: LHD	MHDHHD_XOTBan_Bds
	OCM (TC, CAC) (use abbreviations per SAE J1930 SEP91)

			(use apprevie	-		
Engine Model (Eng Code)	Rated HP G 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 3 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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