State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-280-1 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 2000 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: Compressed Natural Gas (CNG) or Liquefied Natural Gas (LNG)

	Disp	olacement	Exhaust Emission Control
Engine Family	Liters	Cubic Inches	Systems and Special Features
YCEXH0505CBJ	8.3	505	Turbocharger
(553F)			Charge Air Cooler
()			Powertrain Control Module
			Heated Oxygen Sensor
			Oxidation Catalytic Converter

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):

	Non-Methane			
	<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	Particulate Matter
"FTP"	1.2	15.5	2.5	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:

	Non-Methane			
	Hydrocarbons	Carbon <u>Monoxide</u>	<u>Nitrogen Oxides</u>	Particulate Matter
"FTP"	0.2	0.6	1.7	0.01

CUMMINS ENGINE COMPANY, INC.

BE IT FURTHER RESOLVED: That the listed engine models are certified for use in urban buses.

BE IT FURTHER RESOLVED: That the listed engine models are certified to the optional loweremission NOx standard pursuant to Title 13, California Code of Regulations, Section 1956.8(a)(1).

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 aforementioned engine family has been conditionally certified subject to the following conditions:

- 1. The Settlement Agreement is in effect.
- The manufacturer is in compliance with all applicable certification requirements of the Settlement Agreement.

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.

Executive Order A-21-280 issued on December 28, 1999, is hereby superseded by Executive Order A-21-280-1.

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

Executed at El Monte, California this 27^{4} day of April 2000.

R. B. Summerfield, Chief Mobile Source Operations Division

Engine Model Suprary Form

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ATTACH MENT

Manufacturer: Cummins Engine Company Engine category: On-highway HDDE

EPA Engine Family. YCEXH0505CBJ Mfr Family Name: 553F Process Code: New Submission

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8.Fuel Rate: 9.Emission Control (bs/hr)@peak torque Device Per SAE J1930 na H2OS, na PGMGC na PGMGC			·			
8.Fuel Rate: (tbs/hr)@peak torque na na						
7.Fuel Rate: mm/stroke@peak torque na na na					· · · · · · · · · · · · · · · · · · ·	
6.Torque @ RPM (SEA Gross) 750 @ 1400 750 @ 1400 660 @ 1400				- i		
5.Fuel Rate: (Ibs/hrt) @ peak HP (for diesels only) na na na						
4. Fuel Rate: mm/stroke @ peak HP (for diesel only) na na		· · · ·				
3.BHP@RPM (SAE Gross) 275 @ 2400 250 @ 2400 250 @ 2400		•				
2.Engine Model C8.3-275G C8.3-250G C8.3-250G						
1.Engine Code 2290;FR90304 2466;FR90271 2466;FR90271						· · ·

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Engine category:	On-highway HDDE	γ ΗDDE		AT	ATTACHMENT	トイ				
EPA Engine Famly.		5CBJ								
Mfr Family Name:	553F									
Process Code:	New Submission	ission								
					Electronic Control Modulo	After Treatment Device (Specifv)	Smoke Puff I imiter	Sensor Assemblies Description Part Nun	<u>semblies</u> Part Number	
Engine Code	Engine Model	Injection Pump	Injector	i urbo Charge	Mindule			-	1210200	
2200-ER00304	C8 3-275G	NA	AN	3536348	3933559	3928277	AN	Engine position	10/8/05	
LOCOCY L'OG77		•		3536354	3934683	(catalytic		Mixer inlet	3080408	
				3537511		·		PC6Siant	3613547	
				3537519				temperature Intake manifold	3865312	
			2	1000		· ·	•	Otemperature Oxygen sensor	3931711	
								Fuel flow sensor	3929935	
								Speed sensor	3078152	
		NA	NA	3536348	3933559	3928277	NA	Engine position	3078151	1.1
2400;FK3U27U	5067-000			3536354	3934683	(catalytic		Mixer Inlet	3080408	
	:			3537511		and the second se		PC65Sure	3613547	
				3537519	•	· · · · · · · · · · · · · · · · · · ·		Intake manifold	3865312	
				1000	- - -			Oxygen sensor	3931711	
								Fuel flow sensor	3929935	÷11
								Speed sensor	3078152	
		014	NA	3536348	3933559	3928277	NA	Engine position	3078151	
2466;FK9U271	5062-6.00			3536354	3934683	(catalytic		Mixer inlet	3080408	
				3537511				PCoSlant	3613547	
	·	·	:	3537512				lintake manifold	3865312	
				1000				Oxygen sensor	3931711	
								Fuel flow sensor	3929935	
		:						Speed sensor	3078152	:
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Part Number Sumering Form

Cummins Engine Company

Manufacturer:

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