State of California AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-53 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-45-3;

IT IS ORDERED AND RESOLVED: That the following Cummins Engine Company, Inc. 1989 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

Engine Family	Displacement Liters (Cubic inches)		Exhaust Emission Control Systems (Special Features)		
KCE03.4EAA1 (472)	3.4	(210)	Smoke Puff Limiter (Diesel injection - Prechamber) (Turbocharger)		

Engine models and codes are listed on attachments.

The following are the certification emission standards for these engine families:

Hydrocarbons _gm/bhp_hr	Carbon Monoxide gm/bhp-hr	Nitrogen Oxidesgm/bhp-hr	Particulates gm/bhp-hr_
1.3	15.5	6.0	0.60

The following are the certification emission values for these engine families, except that compliance with the carbon monoxide emission standard has been demonstrated pursuant to the Code of Federal Regulations, Title 40, Part 85, Subpart A, Section 86.088-23(c)(2)(1):

Engine Family	Hydrocarbons gm/bhp-hr	Nitrogen Oxides gm/bhp-hr	Particulatesgm/bhp-hr
KCE03.4EAA1	0.6	4.3	0.58

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2036).

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 2rd day of November, 1988.

K. D. Drachand, Chief Mobile Source Division

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1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

Manufa	cturer Cummi	ns Engine Comp	any, Inc.	Engine Family	KCE03.41	EAA1	
Liter	_	.434 (210)		_	nline, 6 c	···	
Emissi	on Control Sy	s. and (Specia	l Features)		OIP (TC), S	BPL	
Engine Model		Injector Mfr. Part Number	Maximum Rated HP at RPM	Fuel Rate mm /stroke (lbs/Hr)	Maximum Rated Torque at RPM	Fyel Rate mm /stroke (lbs/Hr)	•
6AT3.4	Robert Bosch	Robert Bosch		· · · · · · · · · · · · · · · · · · ·	81		
CPL #s							
1177	CO147046515	CO147072302	120@3600	50.3(61.1)	221@2000	54.3(36.6)	
1178	CO147046518	CO147072302	102@3600	43.5(52.7)	197@1600	46.5(25.1)	
1206	CO147046522	CO147072302	105@3000	51.1(51.8)	215@1600	52.2(28.2)	

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1989 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY-DUTY DIESEL ENGINES

turer <u>Cummin</u>	s Engine Compa	ny, Inc. En	gine Family	KCE03.4EA	AA1	
CID)3.	434 (210)	Eng. T	ype <u>In</u>	line, 6 cy	linders	
Emission Control Sys. and (Special Features) DIP (TC), SPL						
Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP at RPM	Fuel Rate	Rated	Fuel Rate mm /stroke (lbs/Hr)	
Robert Bosch	Robert Bosch					
CO147046515	CO147072302	120@3600	50.3(61.1)	221@2000	54.3(36.6)	
CO147046518	CO147072302	102@3600	43.5(52.7)	187@2000	46.0(31.0)	
CO147046522	CO147072302	105@3000	51.1(51.8)	215@1600	52.2(28.2)	
		•				
	Fuel Injection Pump Mfr. Part Number Robert Bosch CO147046515	Fuel Injection Pump Injector Mfr. Mfr. Part Number Part Number Robert Robert Bosch Bosch CO147046515 CO147072302 CO147046518 CO147072302	Fuel Injection Pump Injector Maximum Mfr. Mfr. Rated HP Part Number Part Number at RPM Robert Robert Bosch Bosch CO147046515 CO147072302 120@3600 CO147046518 CO147072302 102@3600	CID) 3.434 (210) Eng. Type In Control Sys. and (Special Features) DI Fuel Injection Pump Injector Maximum Fuel Rate Mfr. Mfr. Rated HP mm /stroke Part Number Part Number at RPM (1bs/Hr) Robert Robert Bosch Bosch CO147046515 CO147072302 120@3600 50.3(61.1) CO147046518 CO147072302 102@3600 43.5(52.7)	Fuel Injection Maximum Fuel Rate Rated Mfr. Mfr. Rated HP mm /stroke Torque Part Number Part Number at RPM (1bs/Hr) at RPM Robert Robert Bosch Bosch CO147046515 CO147072302 120@3600 50.3(61.1) 221@2000 CO147046518 CO147072302 102@3600 43.5(52.7) 187@2000	

Date of Issue _____ Revisions: