State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-21-47

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. 1988 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)
JCE0359FAA1 (403)	5.9 (359)	Smoke Puff Limiter (Diesel Injection - Direct) (Turbocharger) (Intercooler)
JCE0505FAA5 (413)	8.3 (505)	Smoke Puff Limiter (Diesel Injection - Direct) (Turbocharger) (Intercooler)

Engine models and codes are listed on attachments.

The following are the emission standards for these engine families:

Hydrocarbons gm/bhp-hr	Carbon Monoxide gm/bhp-hr	Nitrogen Oxides gm/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 the demonstration for meeting the carbon monoxide emission standard has been waived, pursuant to Subpart A, Part 86, Title 40, Code of Federal Regulations, Section 86.088-23(c)(2)(i):

Engine Family	Hydrocarbons gm/bhp-hr	Nitrogen Oxides gm/bhp-hr	Particulates gm/bhp-hr
JCE0359FAA1	1.0	4.7	0.55
JCE0505FAA5	0.7	5.7	0.50

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 attachment.

Executed at El Monte, California this 16th day of December, 1987.

K. D. Drachand, Chief
Mobile Source Division

E.O.# A-21-47

1988 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

Manufacturer Cummins Engine Company, Inc. Engine Family JCE0505FAA5 (413)

Liter (CID) 8.3 (505) Eng. Type Inline 6

Emission Control Sys. and (Special Features) SPL (DID, TC, IC)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP at RPM	Fuel Rate mm^3/stroke (lbs/Hr)	Maximum Rated Torque at RPM	Fuel Rate mm^3/stroke (lbs/Hr)
6CTA8.3 CPL 0893	3910063	3908513	250@2200	130.2 (96.6)	728@1500	148.9 (75.3)
	3912640	3908513	235@2100	125.7 (89.0)	658@1500	131.5 (66.5)
	3908567	3908513	240@2200	125.1 (92.8)	645@1500	133.4 (67.5)
	3915168 (1)	3908513	250@2200	130.2 (96.6)	728@1500	148.9 (75.3)
	3915581 (2)	3908513	235@2100	125.7 (89.0)	658@1500	131.5 (66.5)

Date of Issue 12-16-87 Revisions: (1) April 5, 1988

(2) May 13, 1988
(RC #4-413-88)

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HEAVY-DUTY DIESEL ENGINES

Manufacturer Cummins Engine Company, Inc. Engine Family JCE0359FAA1(403)

Liter (CID) 5.9 (359) Eng. Type Inline 6

Emission Control Sys. and (Special Features) SPL (DID,TC,IC)

Engine Model	Fuel Injection Pump Mfr. Part Number	Injector Mfr. Part Number	Maximum Rated HP at RPM	Fuel Rate mm^3/stroke (lbs/Hr)	Maximum Rated Torque at RPM	Fuel Rate mm^3/stroke (lbs/Hr)
6BTA5.9 CPL0856	3911238 3911239	3912468	180@2500	87.2(73.5)	451 @ 1700	96.1 (55.1)

ate of Issue _____ Revisions:

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