

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-290-31

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

DETROIT DIESEL CORPORATION

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 Detroit Diesel Corporation 1993 model diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

Fuel Type: Diesel

<u>Engine Family</u>	<u>Liters (Cubic Inches)</u>		<u>Exhaust Emission Control Systems and Special Features</u>
PDD08.5FZK7	8.5	518	Powertrain Control Module Charge Air Cooler Turbocharger

Engine models and codes are listed on attachments.

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

<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
1.3	15.5	5.0	0.10

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

<u>Engine Family</u>	<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
PDD08.5FZK7	0.1	0.9	4.6	0.08

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.).

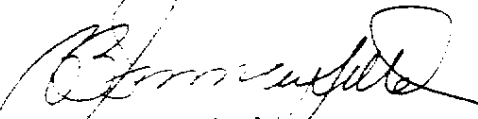
BE IT FURTHER RESOLVED: That the listed engine family is certified for use in urban buses.

BE IT FURTHER RESOLVED: That the listed engine family is certified to the 0.10 grams per brake horsepower-hour particulates emission standard applicable to engines for use in urban buses at the request of Detroit Diesel Corporation based on the assumption that the "California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles" will be amended to allow certification of 1993 model-year heavy-duty diesel engines on a low-sulfur (0.05%) certification diesel fuel having specifications substantially similar to those of the diesel fuel which was used for testing the listed engine family as urban bus engines. The Air Resources Board approved such amendments at a hearing conducted on December 10, 1992. The certification of the listed engine family as urban bus engines is CONDITIONAL on such amendments becoming effective by January 15, 1994. If such amendments do not become effective by January 15, 1994, the listed engine family shall be deemed certified to the heavy-duty diesel engine standards as set forth in section 1956.8 (a)(1)(A) of the Title 13, California Code of Regulations (For non-urban bus engines, in grams per brake horsepower-hour: 1.3 total hydrocarbons, 15.5 carbon monoxide, 5.0 oxides of nitrogen, and 0.25 particulates). Also, if such amendments do not become effective by January 15, 1994, engines of the listed engine family used in urban buses shall be deemed as uncertified engines and shall be subject to Section 43154 of the Health and Safety Code.

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 17th day of December, 1992.



R. B. Summerfield
Assistant Division Chief
Mobile Source Division

1993 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

Manufacturer: Detroit Diesel Corporation Engine Family: PDD08.5FZK7
 Liter (CID): 8.5 (518) Fuel Type: Diesel No. 2 Engine Config.: I-4
 Emission Control System and (Special Features): ECM/PCM, CAC, (TC)

ENGINE MODEL (ENG. CODE)	RATED HP AT RPM	FUEL RATE @ RATED HP mm ³ /STROKE (LBS/HR)	FUEL PUMP & INJECTOR P/N	ECM/PCM P/N	PART. TRAP/ CATALYST P/N
8.5L 1C	275@2100	201.5 (93.8)	5235550	7570050	
2C	275@2100	208.1 (92.7)	5235550	7570050	