## State of California AIR RESOURCES BOARD

## EXECUTIVE ORDER A-290-52

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-45-9;

IT IS ORDERED AND RESOLVED: That the following Detroit Diesel Corporation 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: Compressed Natural Gas (CNG)

| Engine Family                | <u>Liters</u> | (Cubic Inches) | Exhaust Emission Control Systems and Special Features          |
|------------------------------|---------------|----------------|--|
| VDD7.3CZKORB<br>(Series 30G) | 7.3           | 445            | Charge Air Cooler<br>Turbocharger<br>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:

| Non-Methane  | Carbon          | Nitrogen      | <u>Particulates</u> |  |
|--------------|-----------------|---------------|---------------------|--|
| Hydrocarbons | <u>Monoxide</u> | <u>Oxides</u> |                     |  |
| 1.2          | 15.5            | 3.0           | 0.10                |  |

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

| Engine                       | Non-Methane         | Carbon          | Nitrogen      | <u>Particulates</u> |
|------------------------------|---------------------|-----------------|---------------|---------------------|
| <u>Family</u>                | <u>Hydrocarbons</u> | <u>Monoxide</u> | <u>Oxides</u> |                     |
| VDD7.3CZKORB<br>(Series 30G) | 0.6                 | 3.3             | 2.8           | 0.04                |

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 models is certified to the optional lower-emissions NOx standards pursuant to the California Code of Regulation, Title 13, Section 1956.8(a)(1) and the incorporated "California Exhaust Emission Standards and Test Procedures for 1985 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles", adopted April 8, 1985, as last amended June 29, 1995.

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

y of September 1996.

R. B. Summerfield Division Chief

Mobile Source Operational Division

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

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|--|--|---|---|---|--------------------------|---|
| Manufacturer:  | Detroit Diese  | Corporation   | ahaa  | Engine 1                                  | Family: VDD              | 7.3CZK0RB                                   |
| Maximum Rate Ignition: Comp Fuel Type(s):  Diesel Cert Fuel Primary Intend | ed Power: 210 pression Dedicated _X CNG _X _ Liel: 13 CCR 22 ed Service Clie | . 445 Cubic Inc<br>HP @ 2400 RP<br>Compression<br>Flex-Fuel<br>NG LPG _<br>282 40 G<br>ass: LHD _X_ | on with Glow Dual-Fuel Other (sp CFR 86.1313- MHD | Plug Diesel _<br>ecify)<br>90 40 0<br>HHD | CFR 86.1313-9            | M85   |
| Exhaust ECS (  | include. MFI,  | TC, CAC): EC  | CM/PCM, CA  | C, (TC)                                   |                          |   |
| Engine Model<br>(Eng Code)   |  | _   | Fuel Pump<br>& Injector<br>Part No.               | ECM/PCM<br>Part No.                       | EGR<br>Valve<br>Part No. | PTOX/<br>Catalytic<br>Converter<br>Part No. |
| SERIES 30G   |  |   |   |   |                          |   |
| lG   | 210@2600   | NA<br>(78.6)  | 23517800  | 23516242                                  |                          |   |
| 2G   | 210@2400   | NA<br>(78.9)  | <b>\</b>  | <b>↓</b>                                  |                          |   |

NA: Data not applicable to gaseous fueled engine.

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