

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-290-46

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 1996 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: Diesel

<u>Engine Family</u>	<u>Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems and Special Features</u>
TDD11.EJDARA (SERIES-60)	11.1 (677)	Powertrain Control Module Turbocharger Charge Air Cooler

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>Total 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:

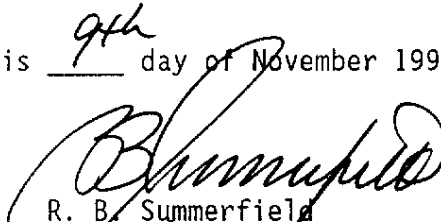
<u>Engine Family</u>	<u>Total Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
TDD11.EJDARA (SERIES-60)	0.1	1.5	4.9	0.06

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.).

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 9<sup>th</sup> day of November 1995.



R. B. Summerfield  
Assistant Division Chief  
Mobile Source Division

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL-STANDARD ENGINES

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Manufacturer: Detroit Diesel Corporation Engine Family: TDD11.EJDARA  
 Displacement: 11.1 Liters 677 Cubic Inches  
 Maximum Rated Power: 365 HP @ 1800 RPM Engine Configuration: I-6  
 Ignition: Compression X Compression with Glow Plug \_\_\_\_\_ Spark \_\_\_\_\_  
 Fuel Type(s): Dedicated X Flex-Fuel \_\_\_\_\_ Dual-Fuel \_\_\_\_\_ Diesel X M100 \_\_\_\_\_ M85 \_\_\_\_\_  
 CNG \_\_\_\_\_ LNG \_\_\_\_\_ LPG \_\_\_\_\_ Other (specify) \_\_\_\_\_  
 Diesel Cert Fuel: 13 CCR 2282 \_\_\_\_\_ 40 CFR 86.1313-90 \_\_\_\_\_ 40 CFR 86.1313-94 X  
 Primary Intended Service Class: LHD \_\_\_\_\_ MHD \_\_\_\_\_ HHD X Urban Bus \_\_\_\_\_  
 Exhaust ECS (include. MFI, TC, CAC): ECM/PCM, CAC, (TC)

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @Rated HP mm3/Stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX/ Catalytic Converter Part No.
<u>1L1L</u>						
1C	365@1800	192.1 (115.0)	5235580	23513553		
2C	350@1800	184.3 (110.3)	5235580	23513553		
3C	325@1800	170.6 (102.1)	5235580	23513553		
4C	330@2100	161.5 (110.9)	5235580	23513553		
5C	330@1800	179.6 (105.9)	5235580	23513553		
6C	350@2100	172.1 (118.4)	5235580	23513553		
7C	325@2100	151.2 (105.6)	5235580	23513553		
1D	350@1800	184.3 (110.3)	5235580	23513553		
2D	325@2100	151.2 (105.6)	5235580	23513553		
3D	325@1800	170.6 (102.1)	5235580	23513553		
4D	350@2100	172.1 (118.4)	5235580	23513553		
5D	330@2100	161.5 (110.9)	5235580	23513553		

1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL-STANDARD ENGINES

Page 2 of 2

Manufacturer: Detroit Diesel Corporation Engine Family: TDD11.EJDARA  
 Displacement: 11.1 Liters 677 Cubic Inches  
 Maximum Rated Power: 365 HP @ 1800 RPM Engine Configuration: I-6  
 Ignition: Compression  Compression with Glow Plug  Spark   
 Fuel Type(s): Dedicated  Flex-Fuel  Dual-Fuel  Diesel  M100  M85   
                   CNG  LNG  LPG  Other (specify) \_\_\_\_\_  
 Diesel Cert Fuel: 13 CCR 2282  40 CFR 86.1313-90  40 CFR 86.1313-94   
 Primary Intended Service Class: LHD  MHD  HHD  Urban Bus   
 Exhaust ECS (include. MFI, TC, CAC): ECM/PCM, CAC, (TC)

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @Rated HP mm3/Stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX/ Catalytic Converter Part No.
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11.1L-CONTINUED

6D	330@1800	179.6 (105.9)	5235580	23513553		
7D	325@2100	151.2 (105.6)	5235580	23513553		
1E	325@1800	170.6 (102.1)	5235580	23513553		
2E	325@1700	178.8 (101.1)	5235580	23513553		
3E	300@1800	156.9 (93.9)	5235580	23513553		
4E	330@1800	179.6 (105.9)	5235580	23513553		
5E	300@1700	169.5 (95.8)	5235580	23513553		
1F	325@1800	171.1 (102.4)	5235580	23513553		