

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-290-47

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>
TDD12.EJDARA (SERIES-60)	12.7 (775)	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:

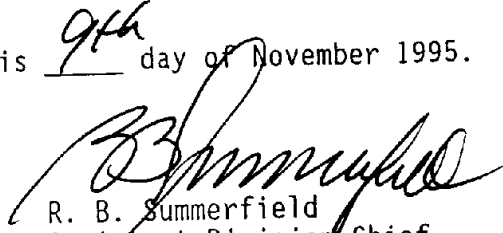
<u>Engine Family</u>	<u>Total Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
TDD12.EJDARA (SERIES-60)	0.1	1.7	4.9	0.09

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 9th 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

Page 1 of 3

Manufacturer: Detroit Diesel Corporation

Engine Family: TDD12.EJDARA

Displacement: 12.7 Liters 775 Cubic Inches

Maximum Rated Power: 500 HP @ 2100 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 XPrimary 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>12.7L</u>						
1A	470@2100	220.1 (153.7)	5235575	23513553		
2A	470@1800	245.8 (147.1)	5235575	23513553		
3A	430@2100	200.7 (140.2)	5235575	23513553		
4A	430@1800	224.2 (134.2)	5235575	23513553		
5A	450@1800	235.4 (140.9)	5235575	23513553		
6A	375@1800	195.5 (117.0)	5235575	23513553		
7A	400@1800	208.5 (124.8)	5235575	23513553		
8A	360@1800	187.6 (112.3)	5235575	23513553		
9A	370@1800	192.8 (115.4)	5235575	23513553		

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

Page 2 of 3

Manufacturer: Detroit Diesel Corporation

Engine Family: TDD12.EJDARA

Displacement: 12.7 Liters 775 Cubic Inches

Maximum Rated Power: 500 HP @ 2100 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 XPrimary 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.
----------------------------	-------------------	--	-------------------------------------	---------------------	--------------------------	---

12.7L-CONTINUED

1B	470@2100	220.1 (153.7)	5235575	23513553		
2B	430@2100	200.7 (140.2)	5235575	23513553		
3B	430@1800	224.2 (134.2)	5235575	23513553		
4B	400@2100	186.7 (130.4)	5235575	23513553		
5B	400@1800	208.5 (124.8)	5235575	23513553		
6B	370@2100	172.7 (120.6)	5235575	23513553		
7B	370@1800	192.8 (115.4)	5235575	23513553		
8B	360@1800	187.6 (112.3)	5235575	23513553		
9B	400@1950	196.2 (127.2)	5235575	23513553		
10B	450@1800	235.4 (140.9)	5235575	23513553		
11B	375@1800	195.5 (117.0)	5235575	23513553		

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

Page 3 of 3

Manufacturer: Detroit Diesel Corporation

Engine Family: TDD12.EJDARA

Displacement: 12.7 Liters 775 Cubic Inches

Maximum Rated Power: 500 HP @ 2100 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 XPrimary 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>12.7L-CONTINUED</u>						
1C	500@2100	234.8 (164.0)	5235915	23513553		
2C	500@1800	258.1 (154.5)	5235915	23513553		
3C	500@2100	234.8 (164.0)	5235915	23513553		